



**THRIVE
INDIANAPOLIS**





Adopted by the Metropolitan
Development Commission as an
element of the Comprehensive Plan
for Indianapolis and Marion County

February 21, 2019
2019-CPS-R-001

METROPOLITAN DEVELOPMENT COMMISSION
OF MARION COUNTY, INDIANA
RESOLUTION NO. 2019-CPS-R-001

RESOLUTION 2019-CPS-R-001, amending a segment of the Comprehensive or Master Plan of Marion County, Indiana, Thrive Indianapolis.

Be it resolved that, pursuant to I.C. 36-7-4, the Metropolitan Development Commission of Marion County, Indiana, hereby amends the Comprehensive or Master Plan for Marion County, Indiana, by the adoption of Thrive Indianapolis, which is attached hereto and incorporated herein by reference as an amendment to the Comprehensive or Master Plan of Marion County, Indiana.

Be it further resolved that the Secretary of the Metropolitan Development Commission is directed to certify copies of this Resolution 2019-CPS-R-001 amending the Comprehensive or Master Plan of Marion County, Indiana, Thrive Indianapolis.

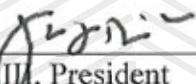
Be it further resolved that the Director of the Department of Metropolitan Development is directed to mail or deliver certified copies of this Resolution 2019-CPS-R-001, to the Mayor of the City of Indianapolis, the City-County Council of Indianapolis and Marion County, the Board of Commissioners of Marion County, Indiana and to the legislative authorities of the incorporated cities and towns of Marion County, Indiana that are directly affected by this plan: Beech Grove, Lawrence, Southport, Speedway, Clermont, Crows Nest, Cumberland, Highwoods, Homecroft, Meridian Hills, North Crows Nest, Rocky Ripple, Spring Hill, Warren Park, Williams Creek, Wynnendale. The Director shall also file one (1) copy of the Resolution and one (1) summary of the plan in the office of the Recorder of Marion County.

DATE: 2.21.2019

APPROVED AS TO LEGAL FORM
AND ADEQUACY THIS 13th DAY
OF FEBRUARY, 2019.


Christopher Steinmetz,
Assistant Corporation Counsel

METROPOLITAN DEVELOPMENT
COMMISSION OF MARION COUNTY,
INDIANA


John J. Dillon III, President



Dear fellow Indianapolis residents,

As climate change continues to take its toll in cities around the world and we feel its effects in Indianapolis through extreme weather events, it is more imperative than ever that our city continues to play a lead role in sustainability and resilience. Thrive Indianapolis is the first actionable plan on these topics in our city's history and brings together City agencies, community partners and residents from all backgrounds and walks of life. It charts a course for an Indianapolis that is equitable, healthier and prepared for the challenges of the 21st century.

In March 2017, we committed to achieving carbon neutrality by 2050, and this plan provides more details for how we will get there. While eliminating emissions is essential, we also must prepare for the changes our community is already facing and that are headed our way. We know that our most vulnerable will be disproportionately impacted by climate change and will require more assistance to meet these new challenges. We must prioritize equity in project implementation, leveraging the Social Vulnerability Index that was developed through this process.

Equity is not just a priority for the implementation phase, however. It was also a priority all throughout the creation of Thrive Indianapolis. In designing this plan, City staff and members of our engagement team specifically reached out to those who will be most affected by climate change, attending and hosting more than 150 events throughout the community to spread the word and gather input.

With our winning bid for the Bloomberg Philanthropies' American Cities Climate Challenge in October 2018, we are well on our way to implementation of Thrive Indianapolis. Indianapolis is one of only 20 cities to receive this prestigious grant, and we are proud to be selected to be at the forefront of climate action and set the example on community sustainability and resilience.

I hope you will join us in our efforts to build a thriving city. Together, we will create a more resilient future.

Sincerely,

A handwritten signature in black ink that reads "Joe Hogsett".

Joe Hogsett
Mayor
City of Indianapolis





On behalf of the Office of Sustainability, I would like to express my deepest gratitude to the Community and Municipal Task Forces and the environmental stakeholders who helped in the development of the City's first-ever sustainability and resilience planning document, a significant milestone for our City and future generations.

This was indeed a community-driven process, with an equitable engagement at its core. Over the course of seven months, the Thrive Indianapolis Team engaged the public by integrating comments from educational, conversational, and action-oriented events throughout the city, collecting 3,152 survey responses and promoting dialogue through social media and an online engagement platform. Through these efforts, we reached more than 265,000 Indianapolis residents. The thoughtful contributions of our community members through this robust engagement process helped craft a plan centered on our shared values.

Our overarching goals of increasing community resilience through a focus on equity and achieving net zero greenhouse gas emissions by 2050 position us as leaders in this field, and we are excited to get to work with our community partners on implementing the 59 ambitious but achievable actions outlined in the plan by 2025.

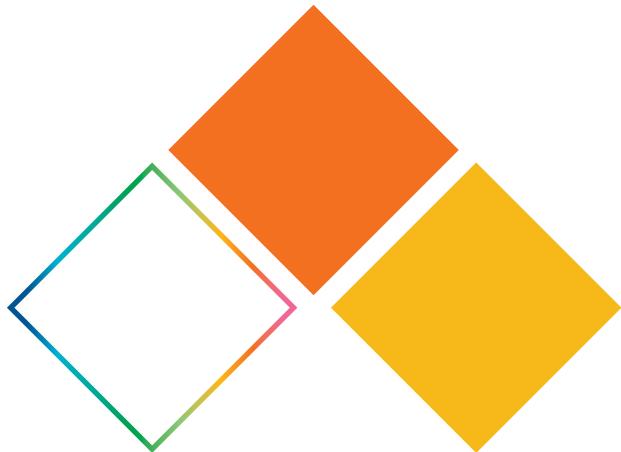
Thrive Indianapolis includes strategies to support our infrastructure better, evolve our economy, and make our city more resilient. Furthermore, it strengthens the bonds of our neighborhoods and reinforces principles like inclusion and respect—because we only overcome our greatest threats if we work together as One City.

While the planning process has come to an end, we look to you – our greater community – to continue to engage with our team as we guide our city through implementation. We welcome additional opportunities to collaborate, form new partnerships, and design new initiatives in a continuous process that will contribute to a stronger, more resilient Indianapolis.

My best,

A handwritten signature in black ink that reads "Katie H. Robinson".

Katie (Lineweaver) Robinson
Director, Office of Sustainability
City of Indianapolis



Thrive Indianapolis was a coordinated effort of:

City of Indianapolis Office of Sustainability
City of Indianapolis Department of Public Works
City of Indianapolis Department of Metropolitan Development
City of Indianapolis Department of Business & Neighborhood Services
City of Indianapolis Department of Homeland Security
Indy Parks
Marion County Public Health Department
Eskenazi Health
The McKinney Green Initiatives Fund



MUNICIPAL TASK FORCE

Paul Babcock	Office of Public Health & Safety
Brad Beaubien	Department of Metropolitan Development
Jeff Bennett	Mayor's Office
Linda Broadfoot	Indy Parks
Ken Clark	Information Services Agency
Gary Coons	Department of Homeland Security
Jeff Hasser	Department of Metropolitan Development
Scott Hohl	Community Corrections
Julee Jacob	Indy Parks
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Cameron Radford	Mayor's Office
Katie Robinson	Office of Sustainability
Taylor Schaffer	Mayor's Office
Al Stovall	Office of Public Health & Safety
Hope Tribble	Office of Audit & Performance
Brett Wineinger	Office of Finance & Management
Aliya Wishner	Mayor's Office

COMMUNITY TASK FORCE

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Matt Carter	Visit Indy
Ella Comerford-Barnett	Earth Charter Indiana
Marlene Dotson	Indiana Latino Institute
Josh Driver	Selflessly
Zac Elliot	IPL
Lacey Everett	MIBOR
Gabe Filippelli	Center for Urban Health (IUPUI)
Stephanie Goodrid Lawson	McKinney Family Fund
Rep. Carey Hamilton	Indiana House of Representatives
Jill Hoffman	White River Alliance
Mali Jeffers	Ambrose Property Group
Angie Le Blanc	Immigrant Welcome Center
Luke Leising	U.S. Green Building Council/Guidon Design
Bryan Luellen	IndyGo
Cathy Mangan	Keep Indianapolis Beautiful
Janet McCabe	Indiana University Environmental Resilience Institute
Ann McIver	Citizens Energy Group
Mandla Moyo	American Association of Retired Persons
President Vop Osili	City-County Council
Dan Overbey	American Institute of Architects/BDMD
Jodi Perras	Sierra Club
Maury Plambeck	Indianapolis Neighborhood Resource Center (INRC)
Jim Rawlinson	Develop Indy
Betsy Revell	EmployIndy
Reed Rouch	Earth Charter Indiana
Adrienne Slash	Urban League
Kameelah Shaheed-Dialo	The Mind Trust (formerly)
Greg Stowers	Kiwanis International
Michael Terry	IndyGo
Alan Witchey	Coalition For Homelessness Intervention & Prevention (CHIP) (formerly)

CONSULTANT TEAM



Carlton Waterhouse, J.D., Ph.D.



ADDITIONAL GUIDANCE PROVIDED BY:

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Rosemary Spalding
Margot Tucker
Kristina Uland
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Emily Wood

Indiana NAACP
Earth Charter Indiana
Hoosier Interfaith Power & Light
IUPUI - Office of Sustainability
Improving Kids Environment
Hoosier Environmental Council
Improving Kids Environment
Earth Charter Indiana
Health By Design
The Nature Conservancy
Hoosier Environmental Council
Indiana Recycling Coalition
Citizens Action Coalition
Earth Charter Indiana
Reconnecting Our Waterways
Earth Charter Indiana
Citizens Action Coalition
Keep Indianapolis Beautiful
Improving Kids Environment
Indiana Wildlife Federation

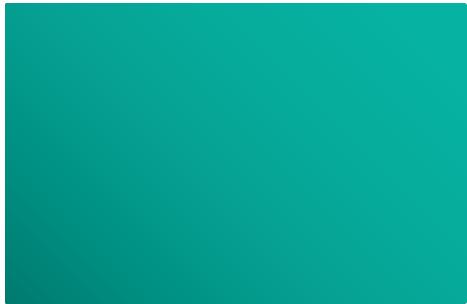


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Plan Elements

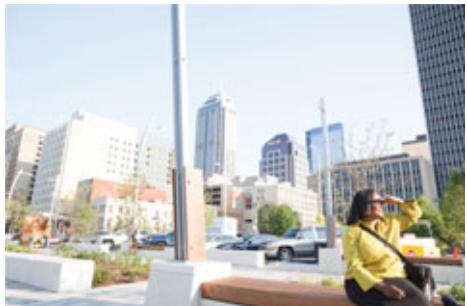
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resilience:

(noun)

The capacity to recover quickly and continue to have opportunities to thrive in the face of challenges.



sustainability:

(noun)

A state where we are meeting the needs of the present without compromising the ability of future generations to meet their needs.





THRIVE INDIANAPOLIS

In March 2017, Mayor Joe Hogsett pledged that Indy will achieve carbon neutrality by the year 2050. To make good on this commitment and in acknowledgment of the increases in average temperatures and extreme weather events that are putting our people and infrastructure at risk, the City launched the **Thrive Indianapolis** planning process. This plan is the roadmap to reduce greenhouse gas emissions and ensures that all of Indianapolis is prepared for and resilient to the changes we are experiencing. The Office of Sustainability built a coalition to support and fund an integrated plan that was shaped by four core values and eight plan elements that cover all aspects of our community.

The development of Thrive Indianapolis, the first sustainability and resilience action plan in our city's history, brought together City departments, County agencies, community partners and residents to chart a course for an Indianapolis that is equitable, healthier and prepared for the challenges of the 21st century.

The result is a plan with 16 key objectives and 59 ambitious but achievable actions that, together, Indianapolis will strive to accomplish by 2025.



To build a more sustainable and resilient community, we must not only address the direct impacts of climate change, but also look at those existing chronic stressors that limit the ability of some of our community members to enhance their personal resilience. These stressors include living at or below the federal poverty level, experiencing homelessness, living in a high crime neighborhood, being exposed to poor air quality and having limited transportation options. We also know that the people struggling with these chronic stressors are also going to be the ones most vulnerable to the impacts of climate change.

Therefore, **Thrive Indianapolis** was developed principally through an equitable engagement process. Our street team attended more than 150 events throughout Marion County and along with our social media and online engagement, reached more than 265,000 people. Our focus was to ensure all members of the community had a voice in plan development and, thus, the future of the place they call home. A concerted effort was made to engage those that have historically been underrepresented. The diversity of our community is a source of pride for Indianapolis. As we continue to strive for participation from everyone, it is important to acknowledge the inequities, disparities, and environmental injustices that some of our community members face from historical and systemic discrimination, exclusion, marginalization, exploitation, underrepresentation and disinvestment.

Given the chronic stressors that already exist in our community and the shocks we are experiencing from extreme weather events due to climate change, Indianapolis had to take a stand to protect our home. Thrive Indianapolis is our community's workplan to do just that. You will see that this plan includes specific actions all of us can help implement over the next few years to put us on the path to not only meet our 2050 carbon neutrality goal, but to build up our infrastructure, economy and neighborhoods in a way that ensures a healthy, resilient future for all.

OVERARCHING GOALS RELATED TO CLIMATE CHANGE

1 Increase community resilience by prioritizing equity in policy, planning and project implementation.

2 Achieve net zero greenhouse gas (GHG) emissions by 2050.



INDY BEST PRACTICE: Resilience Ambassadors

The City of Indianapolis has hired five resilience ambassadors to serve as resilience- and sustainability-focused community organizers. These individuals are residents of the neighborhoods that they represent, comprising the five Great Places 2020 neighborhoods: Englewood Village, King Commons, Maple Crossing, River West, and Twin Aire. The resilience ambassadors will lead their communities in the development of neighborhood-chosen demonstration projects that will build resilience and improve quality of life. These demonstration projects will be implemented in the summer of 2019.

[4] CORE VALUES

Thrive Indianapolis was driven by four core values which represent the City's priorities and are the metrics we use to ensure this plan truly addresses our community's needs.



CAPACITY BUILDING

Helping residents to build prosperous, interdependent neighborhoods



EQUITABLE SERVICES

Delivering high quality public services to all



POVERTY REDUCTION

Creating pathways to prosperity for all community members



FISCAL RESPONSIBILITY

Managing public resources to meet the present and future needs of the Indianapolis community

[8] PLAN ELEMENTS

The plan encompasses eight elements. Each plan element represents an important aspect of the community that needs to be addressed to reach our long-term sustainability and resilience goals. Thrive Indianapolis identifies a vision, objectives and actions for each of the plan elements.



BUILT ENVIRONMENT



ECONOMY



ENERGY



FOOD & AGRICULTURE



NATURAL RESOURCES



PUBLIC HEALTH & SAFETY



TRANSPORTATION & LAND USE

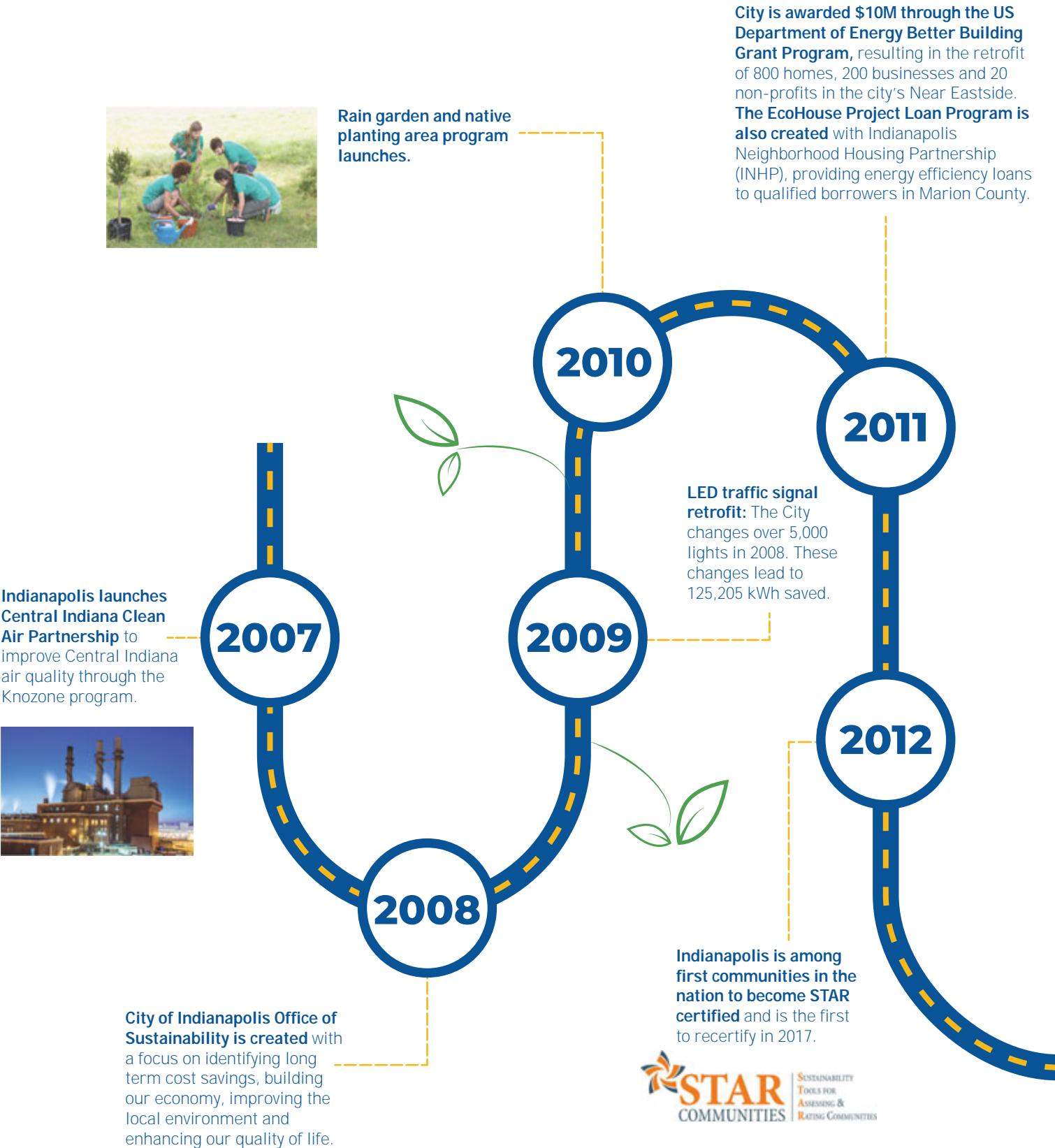


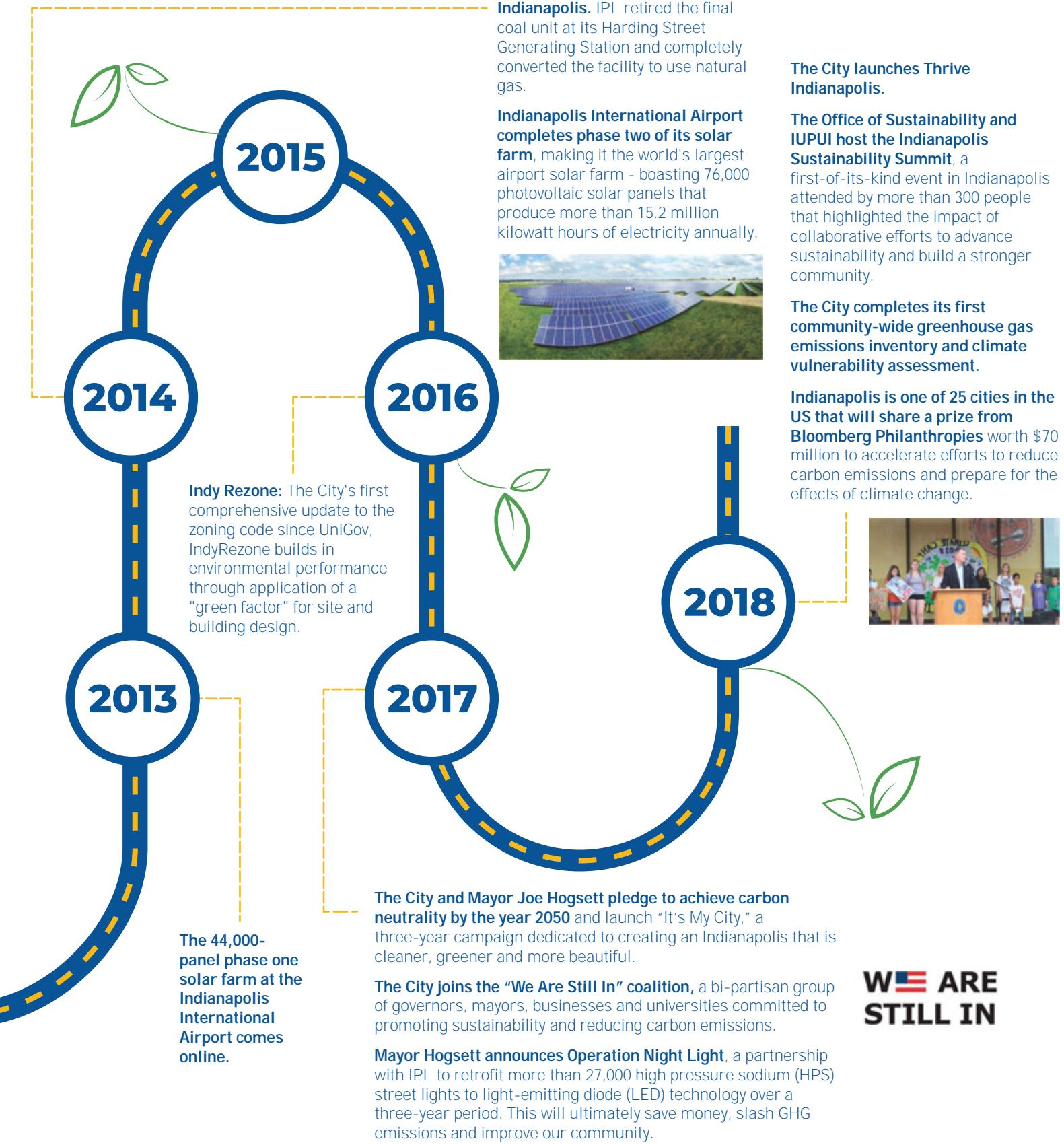
WASTE & RECYCLING

SUSTAINABILITY IN INDIANAPOLIS

7

THE LAST DECADE 2007-2018

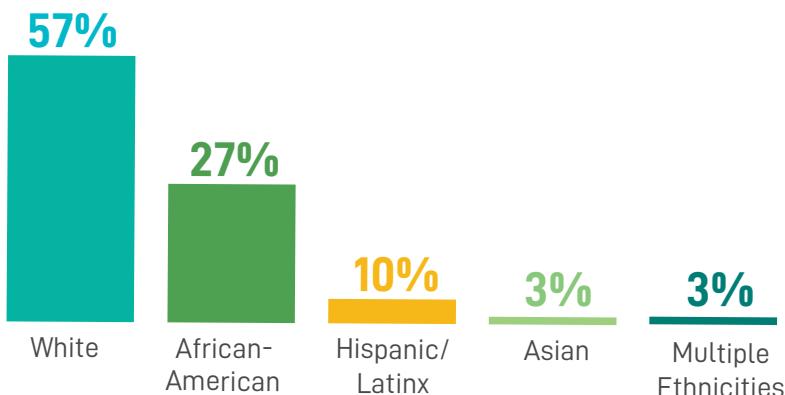




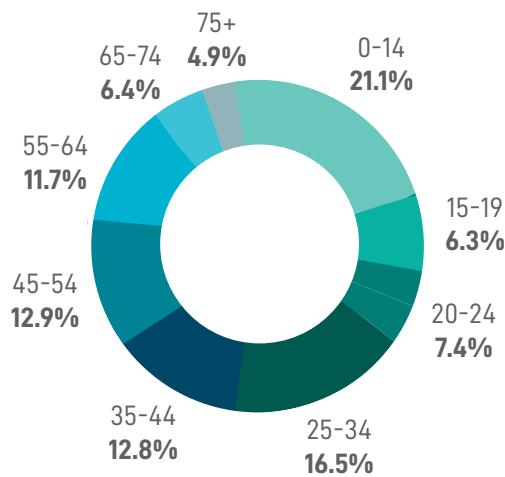
INDY TODAY

Indianapolis is a unique and diverse city with a favorable central location, a strong workforce and a lower cost of living than many other cities. For these reasons and more, Indianapolis is a very attractive place for people and businesses to call home.

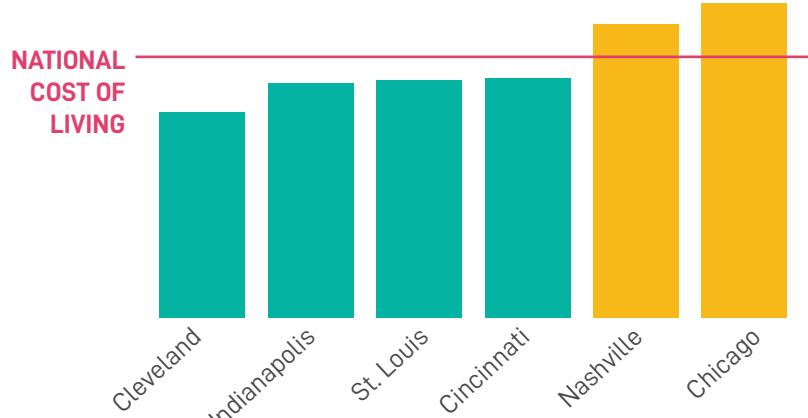
Ethnicity Distribution¹



Age Distribution²



Cost of Living³



403

total square miles⁴

932,142

total 2016 population⁵

14%

growth in population
in Marion County by
2050^{6*}

6

Fortune 1000
companies call
Indianapolis home⁷

¹U.S. Census Bureau, 2016

²Ibid

³BestPlaces, 2018

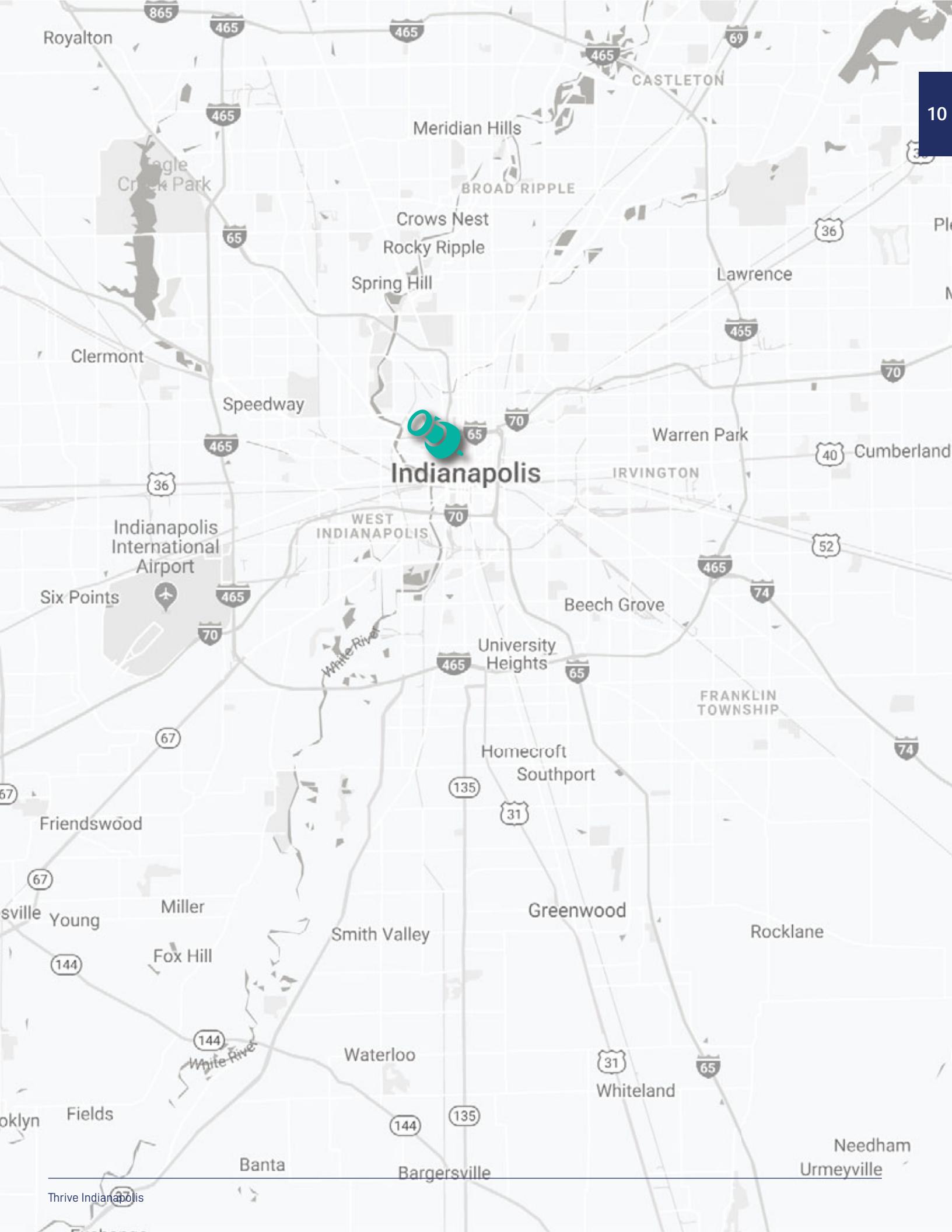
⁴U.S. Census Bureau, 2010

⁵U.S. Census Bureau, 2016

⁶Kinghorn, 2018

⁷Fortune 500, 2017

*This percentage
is a projection
based on past
trends and does
not include
potential future
climate refugees.



Royalton

865

465

465

465

69

CASTLETON

Eagle Creek Park

Meridian Hills

BROAD RIPPLE

Crows Nest

Rocky Ripple

Spring Hill

Lawrence

Clermont

Speedway

455

70

Indianapolis

WEST INDIANAPOLIS

70

Indianapolis
International
Airport

Six Points

36

65

Warren Park

40

Cumberland

Friendswood

Miller

Young

Fox Hill

67

144

144

Smith Valley

135

31

Waterloo

144

135

Greenwood

31

Rocklane

65

Whiteland

oklyn

Fields

Thrive Indianapolis

Banta

Bargersville

Needham
Urmeyville

HOW'S INDIANAPOLIS DOING?

Indianapolis has made significant strides to grow our economy, promote energy efficiency and renewable energy and expand transportation options throughout Marion County. However, there is still work to do. For example, despite having a lower cost of living than many US cities, we still have a large population burdened by the cost of housing, children that are food insecure and adults struggling with obesity and mental health issues. Through implementation of **Thrive Indianapolis**, we strive to leverage our strengths to address these challenges together.

SUCCESSES



CHALLENGES



35%

of Marion County residents are burdened by the cost of housing, meaning they spend 30% or more of their income on housing¹⁷

ECONOMY



9%

of Indianapolis residents are low-income and must travel greater than one mile to the nearest supermarket¹⁸

FOOD & URBAN AGRICULTURE



20%

of children are food insecure in Indianapolis¹⁹

FOOD & URBAN AGRICULTURE



2004
25.6%²¹

2015
33.9%²²

Like most of the US, Indianapolis has seen an increase in adult obesity rates.

HEALTH & PUBLIC SAFETY



60%

of the Indianapolis population is especially vulnerable to poor air quality²⁰

HEALTH & PUBLIC SAFETY



10%

of households subscribe to curbside recycling²³

WASTE & RECYCLING

⁸ Donahue, McDearman & Barker, 2017

⁹ Environment America, 2018

¹⁰ IND Solar Farm, 2018

¹¹ EmployIndy, 2017

¹² U.S. EPA & U.S. DOE, 2018; U.S. Green Buildings Council, 2018

¹³ City of Indianapolis & Marion County, 2017

¹⁴ Ibid

¹⁵ Ibid

¹⁶ City of Indianapolis & Marion County, 2018

¹⁷ The Polis Center at IUPUI, Greater Indianapolis Committee, City of Indianapolis Department of Metropolitan Development & SAVI, 2016

¹⁸ U.S. Department of Agriculture, 2015

¹⁹ STAR Communities, 2015

²⁰ American Lung Association, 2017

²¹ Center of Disease Control and Prevention, 2013

²² Center of Disease Control and Prevention, 2015

²³ City of Indianapolis, 2018



SHOCKS & STRESSORS

Over the last century, we have experienced several shocks from floods to heat waves, each one presenting unique challenges to city services and residents. Indianapolis, like all cities, also has existing challenges, or chronic stressors, like poverty and poor air quality, that need to be addressed to ensure a more sustainable and resilient future for all. **Thrive Indianapolis** has mapped out specific actions we can all take to start to address these chronic stressors that make us even more vulnerable to the shocks that come our way. Together, we can create a more resilient future.

shock:
(noun)

An acute natural or human caused event threatening major loss of life, damage to assets and a city's ability to function and provide basic services.

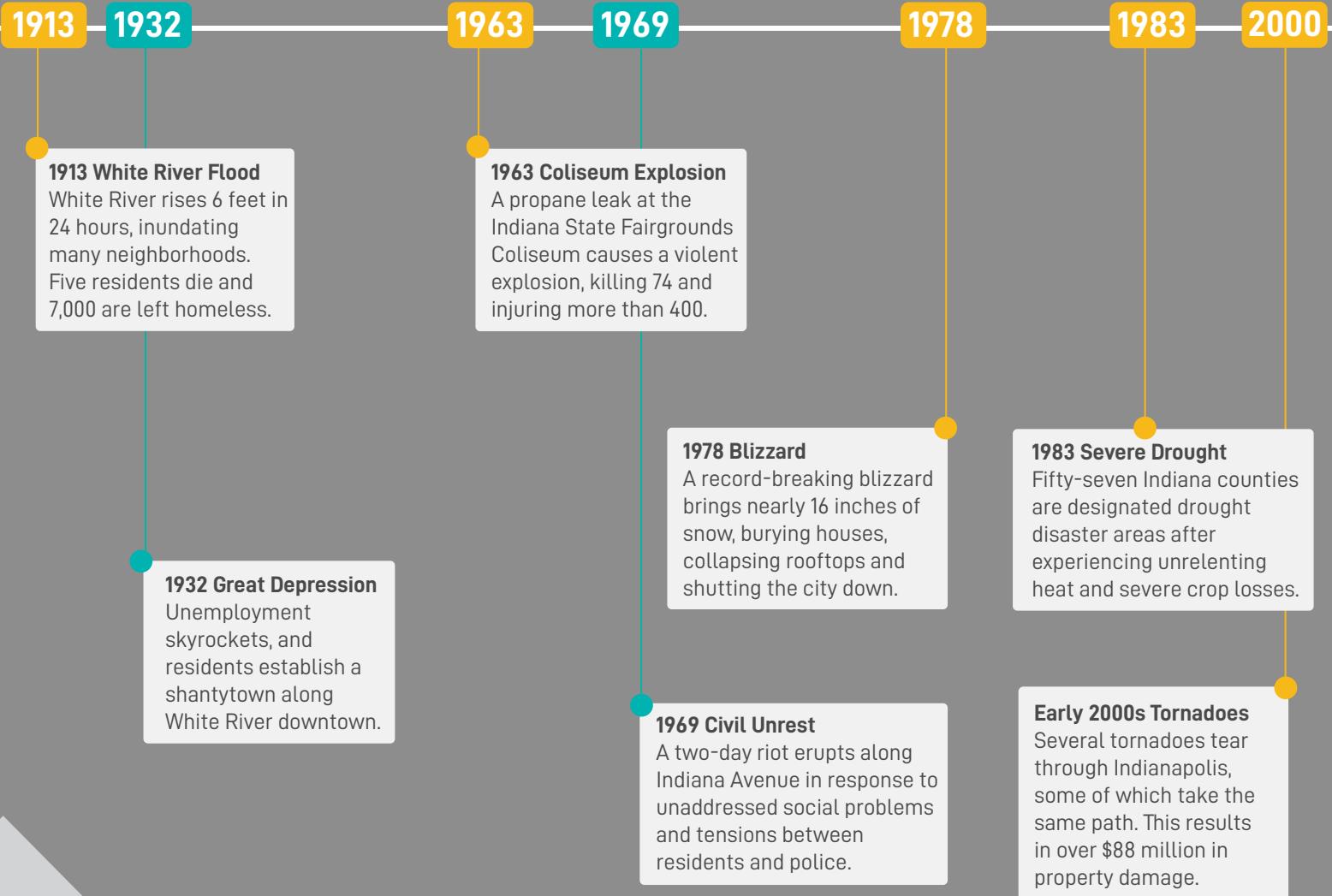
stressor:
(noun)

A chronic natural or human caused event or phenomenon that renders a community less able to function or meet basic needs.

INDIANAPOLIS SHOCKS & STRESSORS

● shocks
● stressors

Examples of regional shocks and stressors that have impacted the people of Indianapolis over the past century.



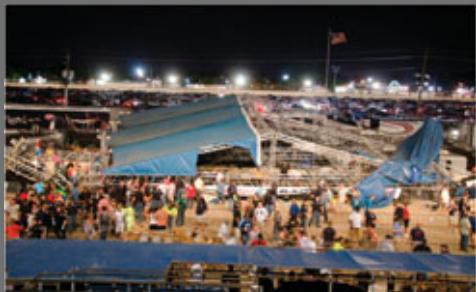
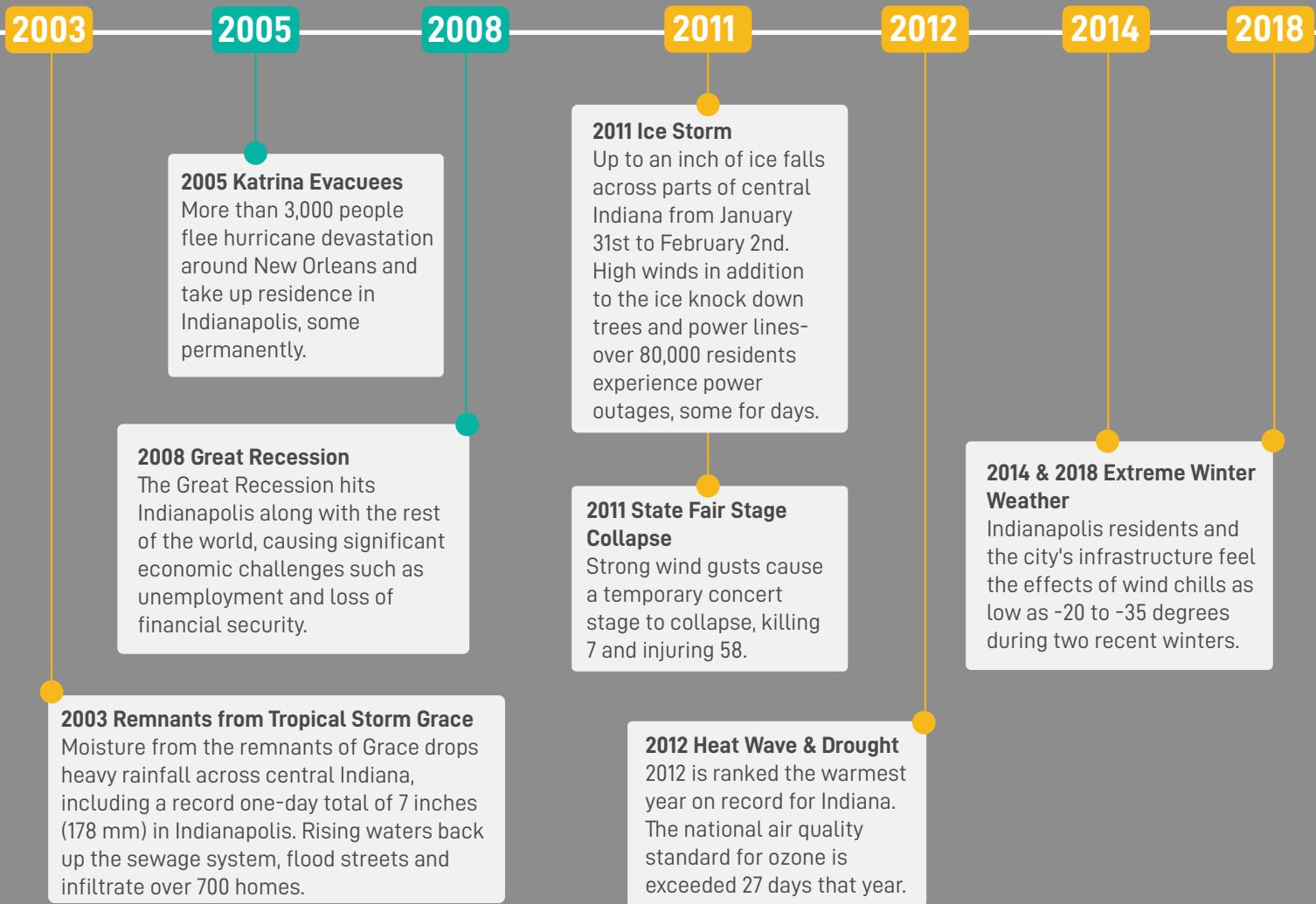
1913 White River Flood



1963 Indianapolis Coliseum Explosion
Francis Miller



1978 Blizzard - Downtown Indianapolis
Tim Halcomb/The News



2011 State Fair Stage Collapse
Tony Campbell



2012 Heat Wave



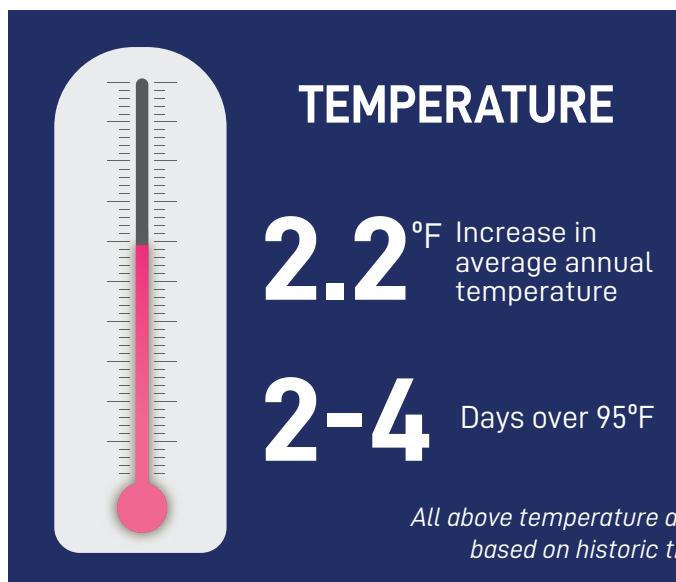
2014 & 2018 Extreme Winter Weather Effects

CLIMATE CHANGE & INDIANAPOLIS

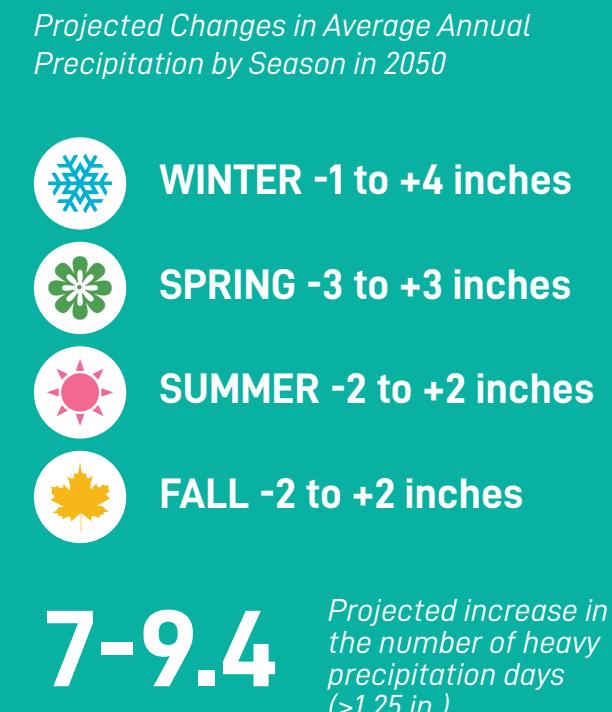
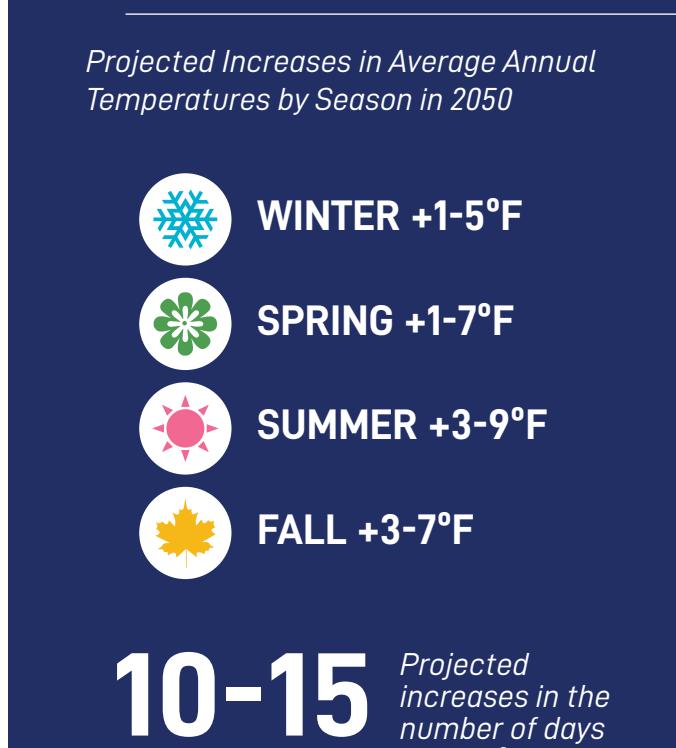
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The climate in the City of Indianapolis is changing. These changes are primarily seen in temperature and precipitation, which then create a cascading effect of impacts on our people, infrastructure and natural resources. The significant spike in these changes over the last century is due to human activity, including how we light, heat and cool our homes, how we get around, the waste we produce and what we eat. Implementing the actions identified through **Thrive Indianapolis** is a big step forward in addressing these significant new challenges facing our community.

TODAY 2018

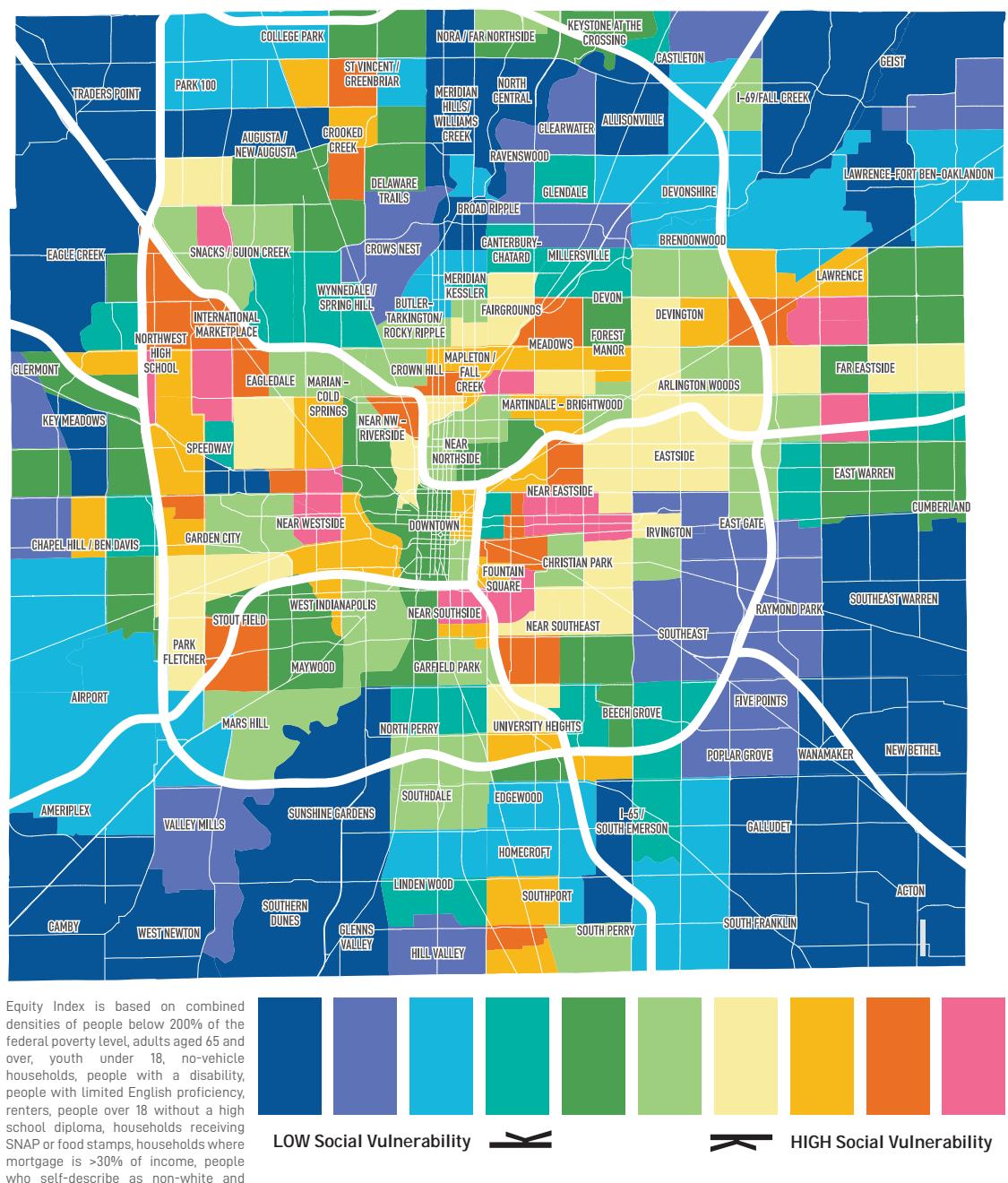


TOMORROW 2050



SOCIAL VULNERABILITY

National assessments of climate risk have repeatedly demonstrated that those who are the most vulnerable will be the ones most impacted by a changing climate. Through the **Thrive Indianapolis** planning initiative, the City of Indianapolis completed a Multi-Hazard Mitigation Plan and a Climate Hazard and Social Vulnerability Assessment. This led to the development of a Social Vulnerability Index which identifies areas of greatest need for capital improvements. There are numerous factors that may increase a person's vulnerability to shocks, stressors and the impacts of climate change. It is important to note that the various socio-economic criteria are not mutually exclusive. The Social Vulnerability Index (SVI) was developed by indexing 12 socioeconomic factors and combining the results in a map highlighting some of Indianapolis' most vulnerable neighborhoods.



Equity Index is based on combined densities of people below 200% of the federal poverty level, adults aged 65 and over, youth under 18, no-vehicle households, people with a disability, people with limited English proficiency, renters, people over 18 without a high school diploma, households receiving SNAP or food stamps, households where mortgage is >30% of income, people who self-describe as non-white and unsheltered homeless.

LOW Social Vulnerability



 HIGH Social Vulnerability

Data Sources: US Census Bureau 2011-2015 American Community Survey 5-Year Estimates, Indianapolis MPO, and City of Indianapolis

THE 12 SOCIOECONOMIC FACTORS INCLUDE:

- | | | | |
|--|--|--|--|
| 1 People living below 200% of the federal poverty level | 4 No-vehicle households | 7 Renters | 10 Households with mortgages greater than 30% of income |
| 2 Adults aged 65 and over | 5 People with a disability | 8 People over 18 without a high school diploma | 11 People who self-describe as other than white/Caucasian |
| 3 Youth under 17 | 6 People with limited English proficiency | 9 Households receiving SNAP benefits or food stamps | 12 Unsheltered homeless |

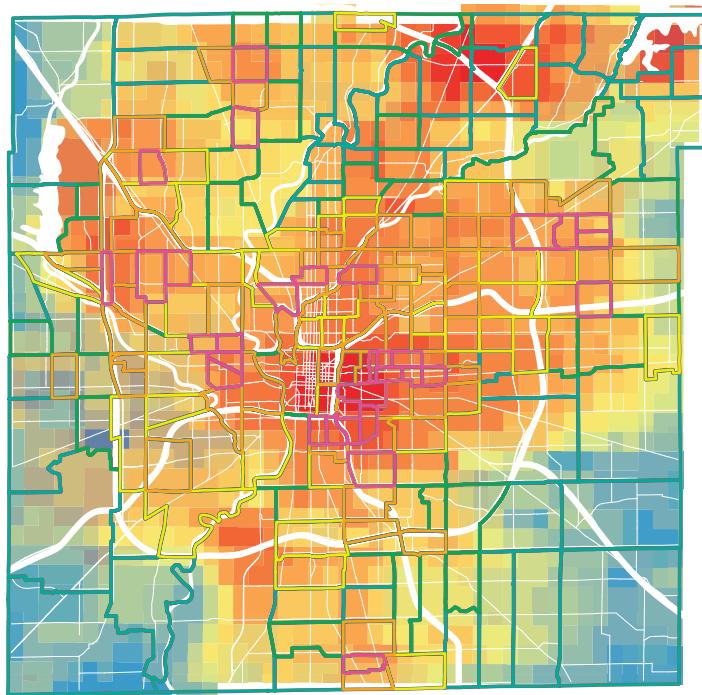
CLIMATE IMPACTS AND SOCIAL VULNERABILITY

The Social Vulnerability Index developed for the Climate & Hazard Vulnerability Assessment was applied to map layers representing the projected climate impacts - those areas most vulnerable to high temperatures and to flooding. This is an important way to identify our greatest areas of concern, as we know our vulnerable populations will have a reduced ability to respond to these projected impacts.

SOCIAL VULNERABILITY: HIGH TEMPERATURES

The map below shows where our most vulnerable populations reside and the summertime maximum temperatures. Given that heat is the number one weather-related killer, those areas outlined in purple with the reddish orange background are priority areas for enhancing community resilience.

Summertime Maximum Daily Temperature

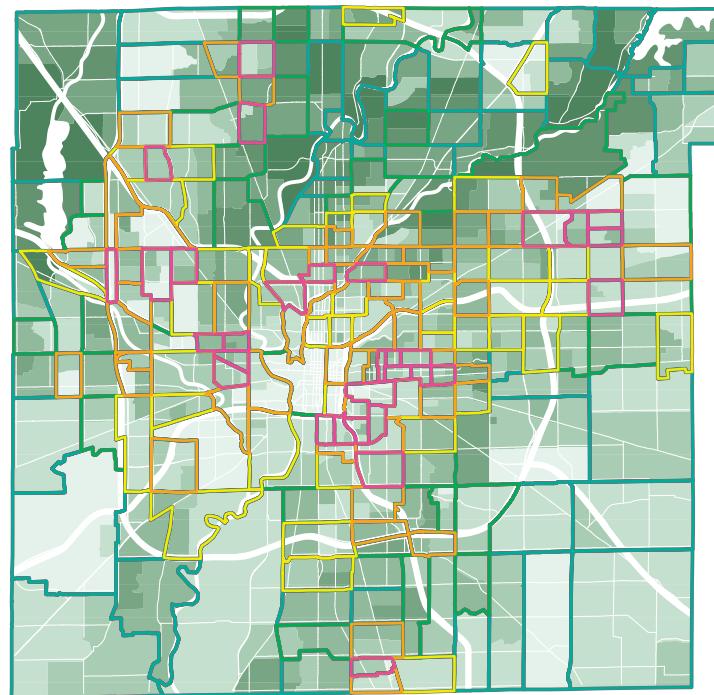


Social Vulnerability	Very Low	Low	Medium	High	Very High
	84-87°F	87.1-89°F	87.1-89°F	91.1-93°F	93.1-95°F
	95.1-96°F	96.1-97°F	97.1-98°F	98.1-100°F	100.1-104°F

Equity Index is based on combined densities of people below 200% of the federal poverty level, adults aged 65 and over, youth under 18, no-vehicle households, people with a disability, people with limited English proficiency, renters, people over 18 without a high school diploma, households receiving SNAP or food stamps, households where mortgage is >30% of income, people who self-describe as non-white and unsheltered homeless.

The value that trees bring to a neighborhood is immense - from improving air quality to reducing temperatures and energy use to delivering mental health benefits. Our tree canopy contributes to our resilience to extreme heat. Those areas in the map below that are outlined in bright pink with a light green background are where we will want to focus our efforts to enhance our tree canopy.

Percent Tree Cover by Block Group



Social Vulnerability	Very Low	Low	Medium	High	Very High
	5-15%	15.1-25%	25.1-35%	35.1-45%	45.1-55%
	55.1-65%	65.1-76.4%			

Equity Index is based on combined densities of people below 200% of the federal poverty level, adults aged 65 and over, youth under 18, no-vehicle households, people with a disability, people with limited English proficiency, renters, people over 18 without a high school diploma, households receiving SNAP or food stamps, households where mortgage is >30% of income, people who self-describe as non-white and unsheltered homeless.

What "Vulnerable" Does and Does Not Mean

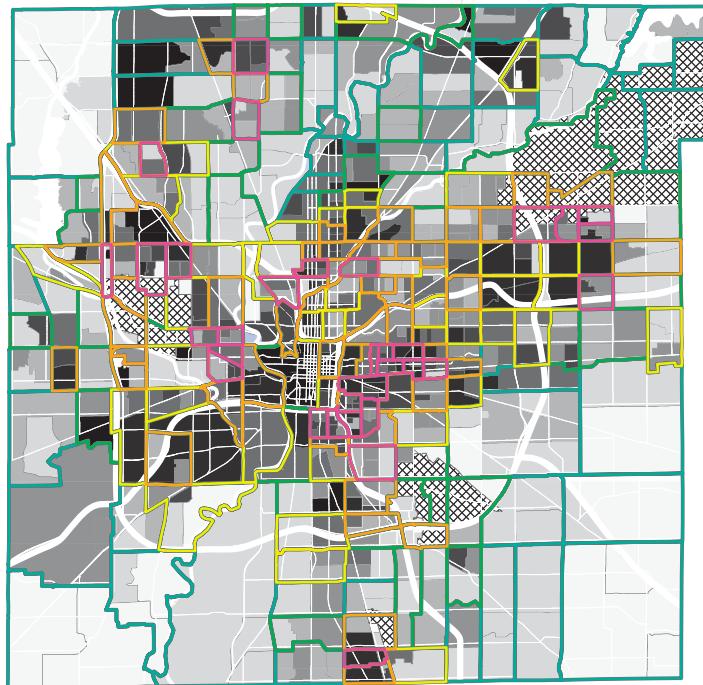
An individual's race, ethnicity, gender identity, sexual orientation, age, social class, physical ability or attributes, religious or ethical values system, national origin, immigrant status, linguistic ability or ZIP code does not make him/her inherently vulnerable. When we refer to "vulnerable" populations, we do so in the context of acknowledging the system's deficiencies rather than as a judgment of any particular community members or neighborhoods.

Thrive Indianapolis - and the sustainable and resilient future we aim to create - is for all Hoosiers, the foundation of which will be actions that prioritize identifying and addressing our greatest vulnerabilities.

SOCIAL VULNERABILITY: FLOODING

The map below shows the areas within Marion County that are impervious surfaces, such as asphalt and concrete, which do not allow water to be absorbed. In addition to contributing to high heat, impervious surfaces in place of natural ones exacerbate our vulnerability to flooding. The areas of greatest risk are those outlined in bright pink with the black backgrounds.

Impervious Surface Areas

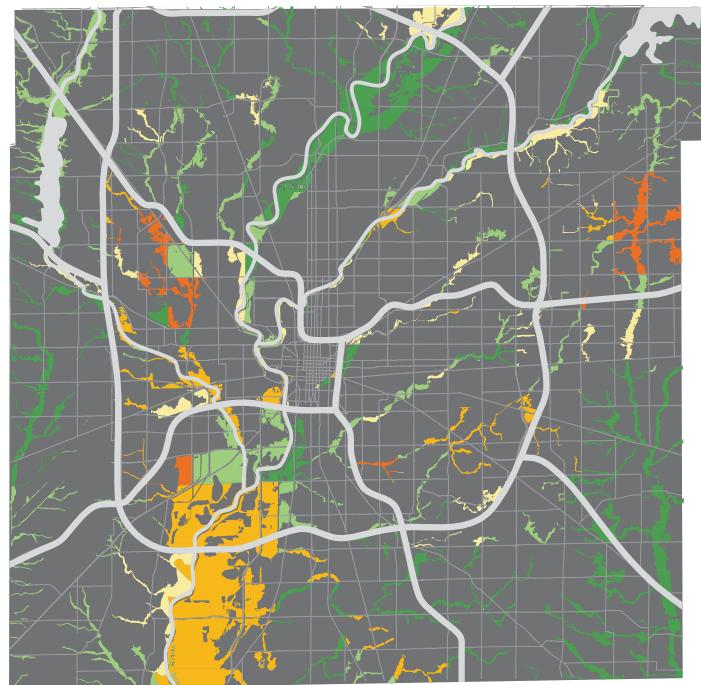


Social Vulnerability	Very Low	< 10%	No Data
	Low	10.1-20%	30.1-35%
	Medium	20.1-25%	35.1-40%
	High	25.1-30%	40.1-50%
	Very High	50.1-85.2%	50.1-85.2%

Equity Index is based on combined densities of people below 200% of the federal poverty level, adults aged 65 and over, youth under 18, no-vehicle households, people with a disability, people with limited English proficiency, renters, people over 18 without a high school diploma, households receiving SNAP or food stamps, households where mortgage is >30% of income, people who self-describe as non-white and unsheltered homeless.

An estimated 166,335 people in Marion County are living below 200% of the federal poverty line and are located in a flood zone. The colors on the map indicate the number range of people that meet these factors throughout the county.

People in Floodplain Below Poverty Threshold



66-500	1001-1500
501-1000	1501-2000
	2001-3468

An estimated total of 166,335 people are below 200% of the federal poverty level AND live in the 1% Annual Chance Flood Zone

PREPARING FOR A CHANGING CLIMATE

BUILDING COMMUNITY RESILIENCE

Even if everyone on Earth stopped emitting all greenhouse gases today, there would still be some change that we have already set in motion, due to the lifespan of these gases in the atmosphere. Therefore, it is essential that we take action to reduce greenhouse gas emissions while also preparing for the impacts. Using what we know about the changes in climate, we can identify the best opportunities to enhance our community's economic, infrastructural, environmental and social resilience. **Thrive Indianapolis** has identified a number of actions to do just that.

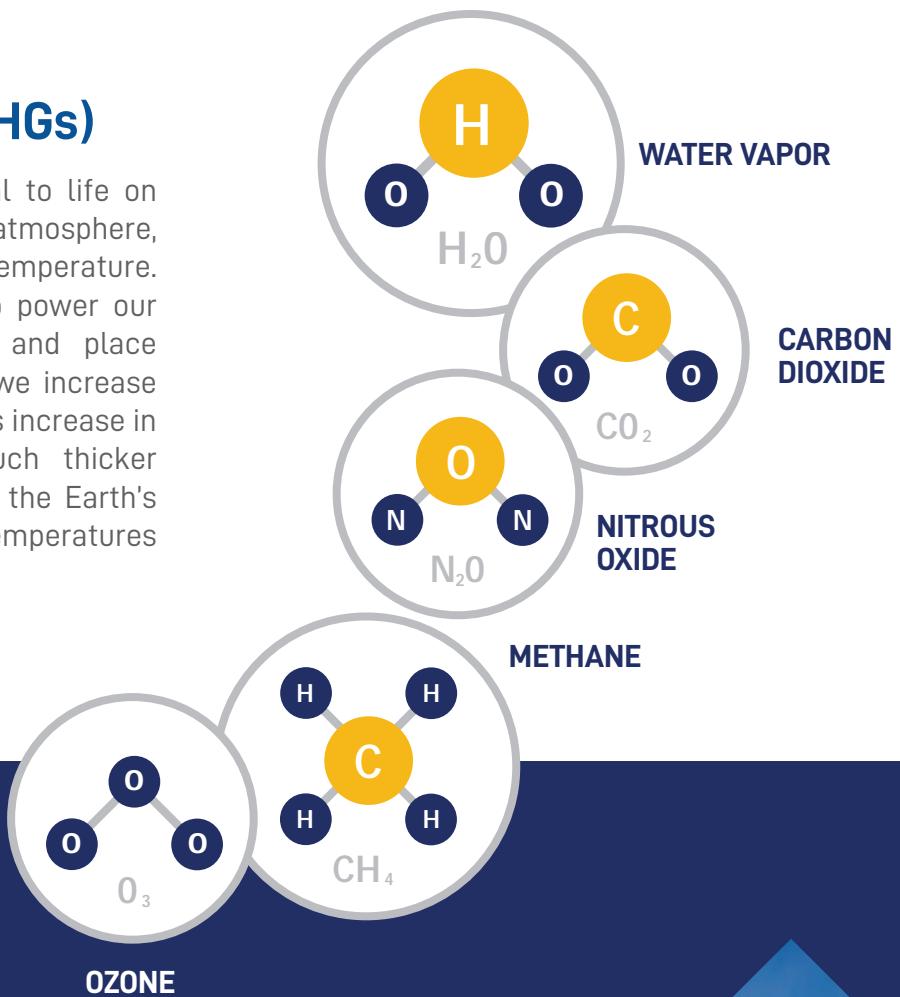


MINIMIZING OUR IMPACT

22

GREENHOUSE GASES (GHGs)

Greenhouse gases (GHGs) are essential to life on Earth. They provide a "blanket" in our atmosphere, trapping heat and regulating the Earth's temperature. However, when we burn fossil fuels to power our homes, businesses and automobiles and place material in our landfill to decompose, we increase the level of GHGs in the atmosphere. This increase in gases has essentially created a much thicker "blanket" and has led to disruptions in the Earth's climate -- resulting in the increases in temperatures and precipitation we are already seeing.



greenhouse gases:

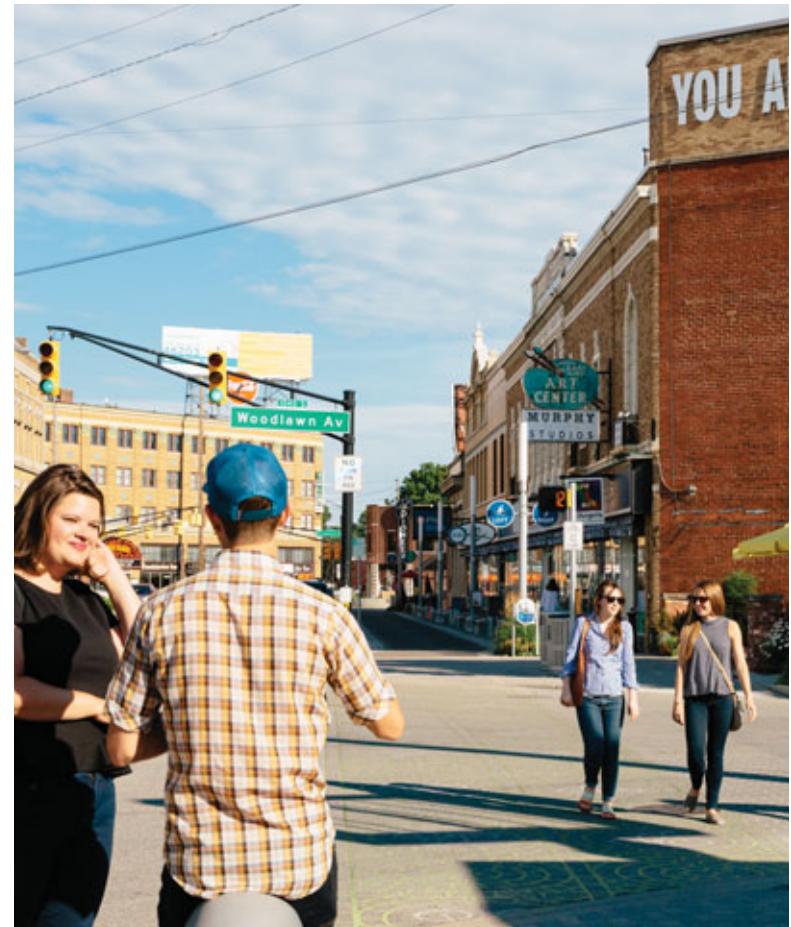
(plural noun) Those gases in the atmosphere, both natural and human caused, that absorb and emit heat, causing the Earth to be warm enough to live on. The primary, naturally occurring greenhouse gases in the Earth's atmosphere are water vapor (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4) and ozone (O_3). There are also a number of human-made greenhouse gases in the atmosphere, including sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).

GHG EMISSIONS

As GHGs rise so do the number and the intensity of extreme weather events, such as torrential rains that contribute to flooding and destroy homes and infrastructure. Temperature increases can contribute to poor air quality and negatively impact the health of the people of Indianapolis, specifically the young, older adults and those with existing asthma or other respiratory issues. For Indianapolis to thrive, our community must act to both understand and reduce our contribution to GHG emissions in the air. The benefits of doing so go well beyond addressing a global challenge. Perhaps more importantly we build a safer, cleaner, healthier Indianapolis for all.

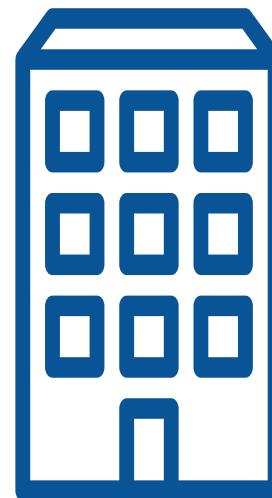
As part of the **Thrive Indianapolis** planning project, the City of Indianapolis conducted a baseline and two interim year GHG emissions inventories to understand our starting point and how our actions to date have impacted that. The community-wide GHG inventory followed international GHG accounting protocols to be consistent with our counterparts across the nation.

The results of the GHG inventories show that despite the total population growing approximately 4% from 2010 to 2016, Indianapolis was able to reduce GHG emissions by 11%. This was primarily due to the conversion of two coal plants and a coal-powered steam plant to natural gas and implementation of energy efficiency measures. We are making progress, but there is still work to do, particularly as it relates to transportation and existing buildings, which many of the Thrive Indianapolis actions address.



2016 Community GHG Emissions by Sector in MTCO2e

65.9%



Buildings

33.8%



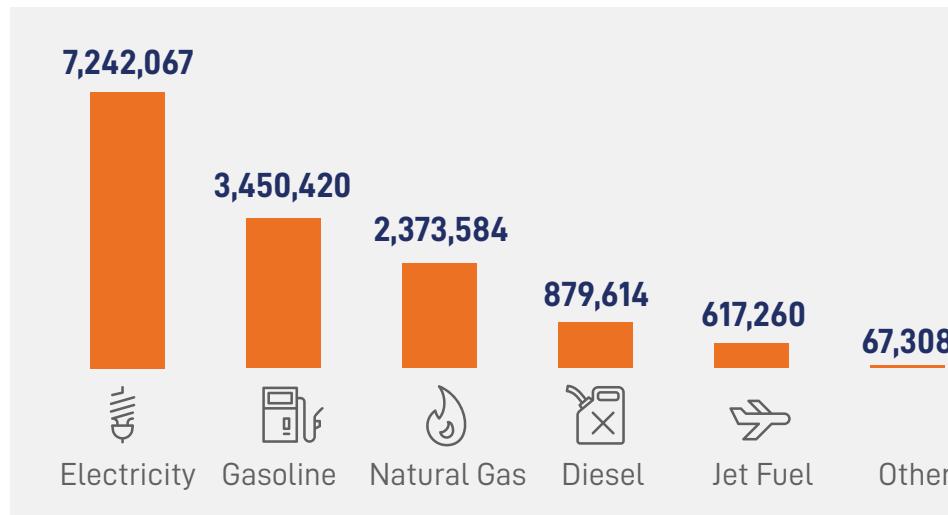
Transportation

0.3%

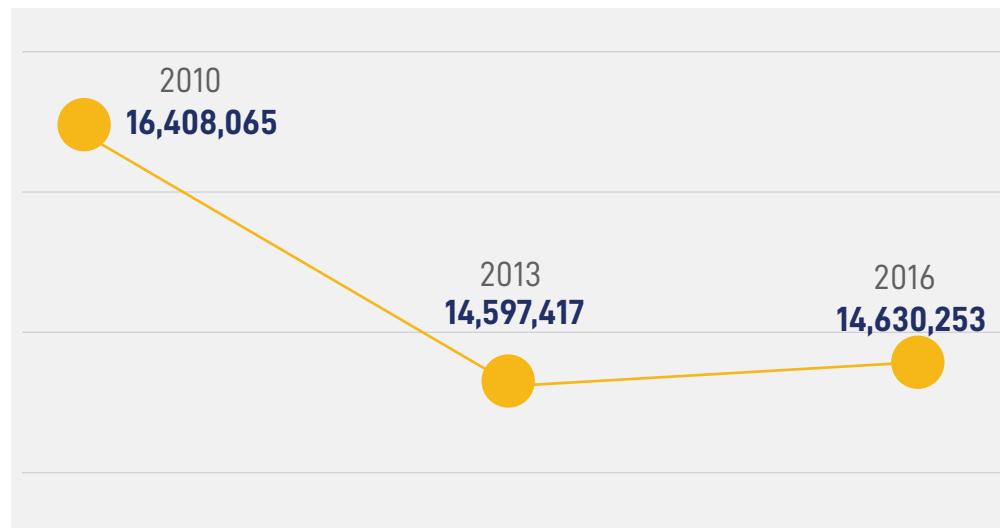


Waste

2016 Community GHG Emissions by Source in MTCO₂e

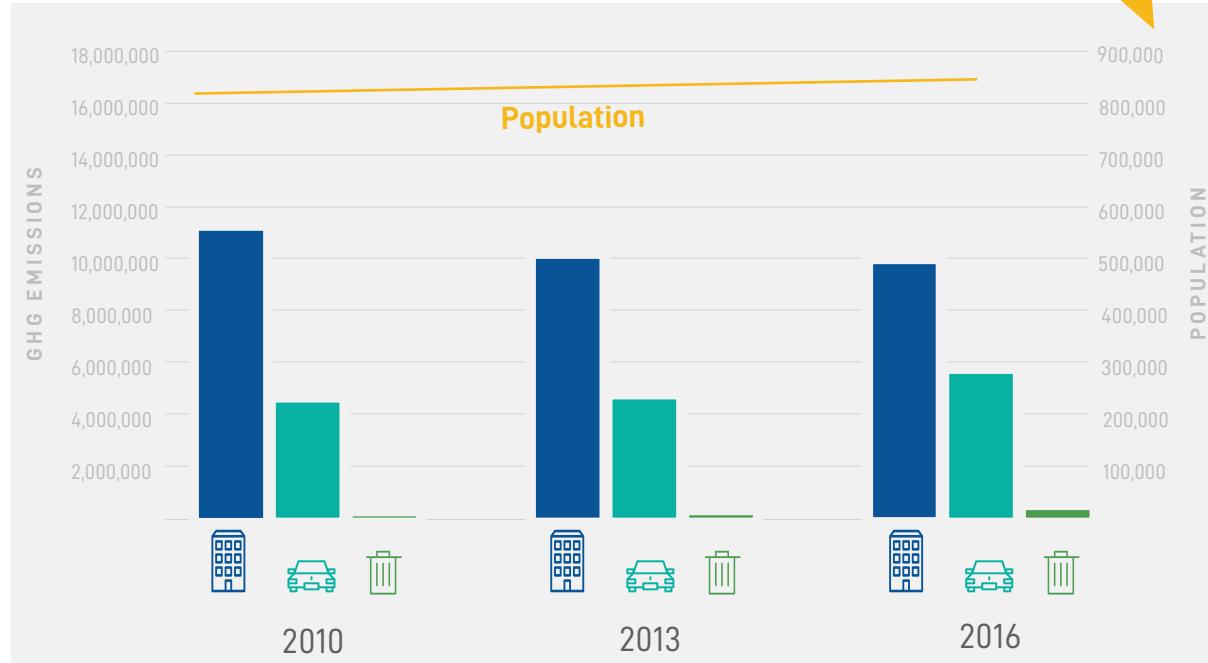


Indianapolis Community GHG Emissions (MTCO₂e) Over Time



Indianapolis GHG Emissions (MTCO₂e) by Sector, Year and Population

- BUILDINGS
- TRANSPORTATION
- WASTE



²⁵All data on pages 23-24: City of Indianapolis & Marion County, 2018

What is MTCO₂e?

MTCO₂e stands for metric tons of carbon dioxide equivalent. GHGs have a heat trapping capacity which varies by gas. Humans produce more carbon dioxide (CO₂) than any other GHG. Therefore, we count emissions of GHGs based on how each GHG's heat trapping capacity compares to CO₂'s. This is called the CO₂ equivalent (CO₂e).

HOW THIS PLAN WAS BUILT

Thrive Indianapolis was developed by working with a Municipal Task Force, a Community Task Force and the public. The City set out to deliver an equitable planning process to ensure that all community members had a voice in the development of this plan, either directly or through organizations that represent them. This was accomplished through a decentralized engagement process that:

- Identified target populations
- Worked with partners to engage the target populations
- Deployed a street team to attend events and activities of these target populations

Over the course of seven months, the **Thrive Indianapolis** Street Team engaged the public by attending or hosting over 150 events, collecting 3,152 survey responses, and promoting conversations through social media and an online engagement platform. The results were more than 265,000 Indianapolis residents reached.

TARGETED APPROACH

We held specialized focus groups and training for target populations, including re-entry, veterans, low-income and those experiencing homelessness. To give youth a voice in the future of their city, we held a Community Day with kid- and family-friendly activities. To reach people where they already are and feel most comfortable, we attended various City and community events and held regular pop-ups at the public library and other central locations.

MUNICIPAL TASK FORCE

Role: Provide strategic guidance for the development of Thrive Indianapolis.

20 City and County departments and agencies involved
5 meetings in 2018

COMMUNITY TASK FORCE

Role: Support the development of Thrive Indianapolis by providing technical and policy-related feedback.

27 organizations representing the different plan elements
4 meetings in 2018



EQUITABLE ENGAGEMENT

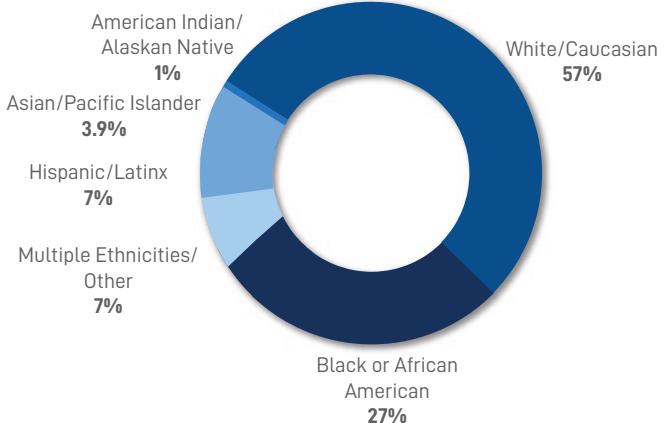
26

150
events

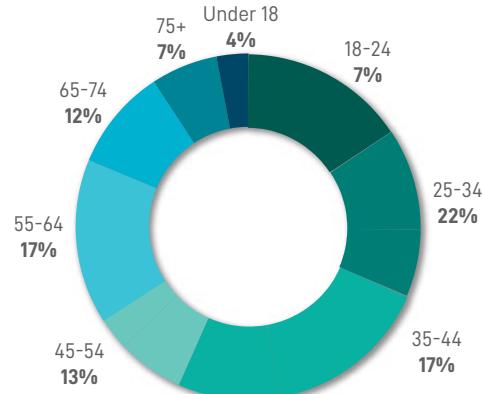
3,152
survey
respondents

265,000
individuals
reached

RACE/ETHNICITY DISTRIBUTION

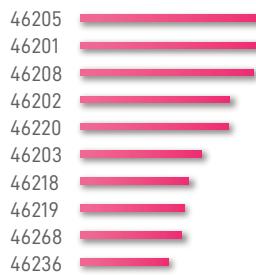


PARTICIPATION AGE DISTRIBUTION



Note: Total is slightly less than 100% due to a few respondents selecting more than one answer choice and/or rounding.

TOP 10 ZIP CODES



PUTTING THE PEOPLE IN PLANNING

"Climate change is causing decreased air quality in all cities. Indy would benefit from more trees to increase oxygen and clean air. Additionally, more urban trees would also improve water quality by absorbing rain run-off."

Thrive Indianapolis Survey #2 respondent (August 2018)

Thrive Indianapolis



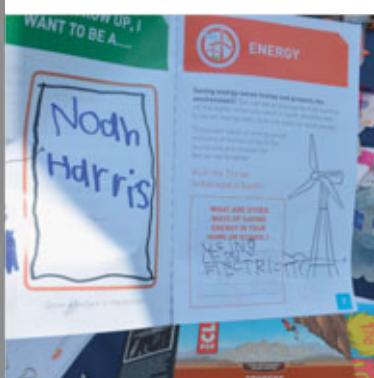
Thrive Indianapolis



Thrive Indianapolis



Thrive Indianapolis



Thrive Indianapolis



Thrive Indianapolis



Thrive Indianapolis



Thrive Indianapolis



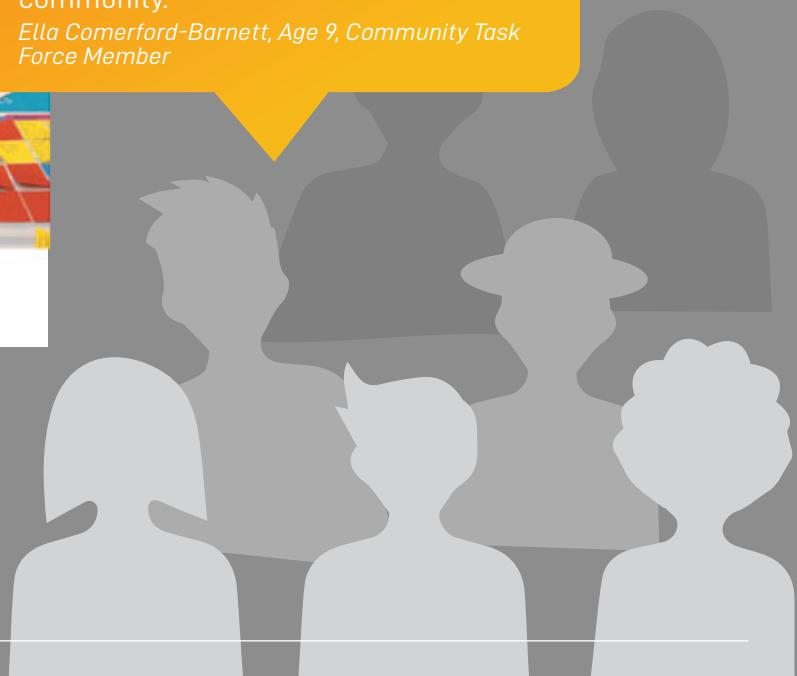
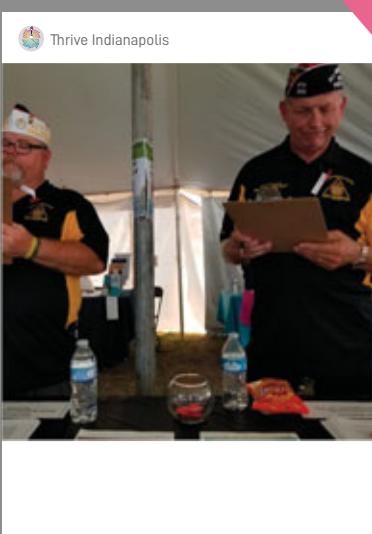
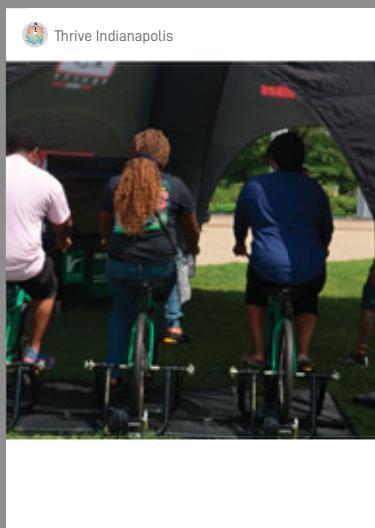
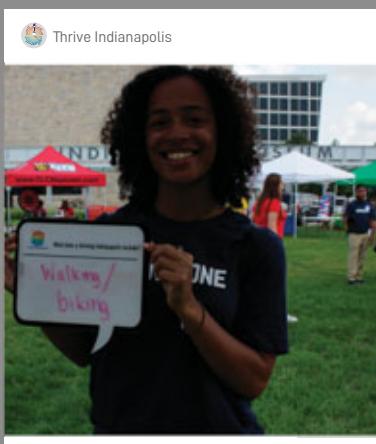
Thrive Indianapolis



"We all should be interested in growing our own food at this point." But it "depends on the soil that it's in" because it might be contaminated.

Thrive Street Team interview with a person experiencing homelessness (Central Library, 8/29/18)





BE A PART OF THE SOLUTION

Our ability to thrive and reach a sustainable, resilient future is in all our hands. The City has helped lead the way by driving this planning process. Now we need everyone's help to take actions and keep us moving forward. Here are some easy things you can do today!



Built Environment

- Plant a rain garden with native plantings to absorb storm water and replenish our aquifers.
- Plant trees in our community by volunteering for Keep Indianapolis Beautiful.
- Become a KIB Adopt-a-Block captain by committing to keep your street clean of litter.
- Support your local community gardens - or even better, grow your own.
- Replace your shingles with a "cool roof" that is lighter in color, reflecting away light in the summer time and reducing your cooling loads.
- Take advantage of rebates offered by IPL and weatherize your home to protect the interior from the elements (as well as reducing your energy bills!).



Economy

- Shop at small, locally owned businesses.
- Support businesses that have transparent and sustainable practices.
- Mentor a young person to support them in their studies and careers.
- Talk to your children about sustainability and how we can all be more sustainable in our daily lives.
- Encourage the young people in your life to gain job experience and skills development through EmployIndy's initiatives and programs including Project Indy and Job Ready Indy.
- Access entrepreneurship resources through the Indy Chamber to learn how to start a small business.



Food & Urban Agriculture

- Eat more plants, which have been proven to be less carbon and resource intensive than eating animal products. A great place to start is with "Meatless Mondays" or one meat-free meal a day.
- Purchase locally-grown food, supporting local agriculture and minimizing energy spent transporting products.
- Support restaurants and grocery stores that use and sell locally-grown food.
- Buy food that is in season, minimizing the distance food must travel.
- Support your local farmers markets.
- Buy ethically grown and harvested food, like coffee and chocolate.



Energy

- Turn off lights and electronics when not in use - or even better, unplug them. Some electronics continue to use power, even when turned off.
- Switch your lightbulbs to more energy efficient LED lights.
- Turn your heat down and A/C up by two degrees, especially if you are not home or away on a trip.
- Reduce your water heater temperature to 130° F to save energy and money on heating water.
- Schedule a free Home Energy Assessment through IPL to learn of opportunities for energy efficiency and weatherization.
- Enroll in IPL's Green Power Option to support renewable energy for an additional \$2.50 in your electric bill on average.
- Seal air leaks and properly insulate windows to save up to 20% on heating and cooling bills, while also increasing the comfort of your home.



Natural Resources

- Trade your shower heads and faucets for low-flow, water-efficient options.
- Turn off your car if you are idling for more than 30 seconds.
- Refuel your car and mow your lawn after 7pm, which helps prevent ground-level ozone.
- Purchase an Environmental License Plate, your money will go towards the protection of Indiana's land, waters and wildlife.
- Collect rainwater in rain barrels to water your lawn and/or plants.
- Keep a plastic bag in your car to collect trash and prevent littering.



Public Health & Safety

- Join the Community Emergency Response Team (CERT) to make Indianapolis more prepared during emergencies.
- Join free exercise classes and health programs offered at 11 local parks through Indy in Motion.
- Put together an emergency preparedness kit for your household by visiting Ready.Gov.
- Check in on the people in your life, especially the elderly and those experiencing mental health problems.
- Practice mindfulness by doing yoga, going for a walk or even just taking deep breaths, all of which have been linked to improved mental and physical health.
- Store your prescription drugs in a safe location, preventing them from falling into the wrong hands.



Transportation & Land Use

- Utilize Pacers Bikeshare when traveling short distances.
- Ride the IndyGo bus to work once a week - or even better, every day.
- Drive an electric, hybrid or low-emission vehicle.
- The best way to warm up your car in the winter time is by driving it. No more than 30 seconds of idling is needed.
- Keep your personal vehicle well-tuned and tires inflated properly, saving up to 20% in gasoline use.
- Ditch your grass lawn and plant native pollinators that support our wildlife and don't require mowing.
- Plant native trees on your property and preserve the trees you already have.



For more information and active links, please visit:
www.thriveindianapolis.com



Waste & Recycling

- Bring your own reusable produce and tote bags when grocery shopping to avoid using plastic bags.
- Purchase reusable goods like durable water bottles, cutlery, and to-go containers to avoid using single-use plastics.
- Never throw hazardous household waste, like batteries and chemicals, in the trash. Dispose of them in an environmentally responsible way, like through ToxDrop.
- Make sure to wash and wipe dry your recyclable goods, so as to lower contamination in recycling streams.
- Buy gently used, second-hand clothing and avoid "fast fashion."
- Minimize your food waste by first eating what you already have in your fridge. Meal planning and making grocery lists can also reduce your food waste.
- Avoid getting food "to-go" to prevent the use of Styrofoam containers, single-use plastics utensils and plastic bags.

PLANNING FOR A THRIVING CITY

ECONOMY
PAGE 44



ENERGY
PAGE 49

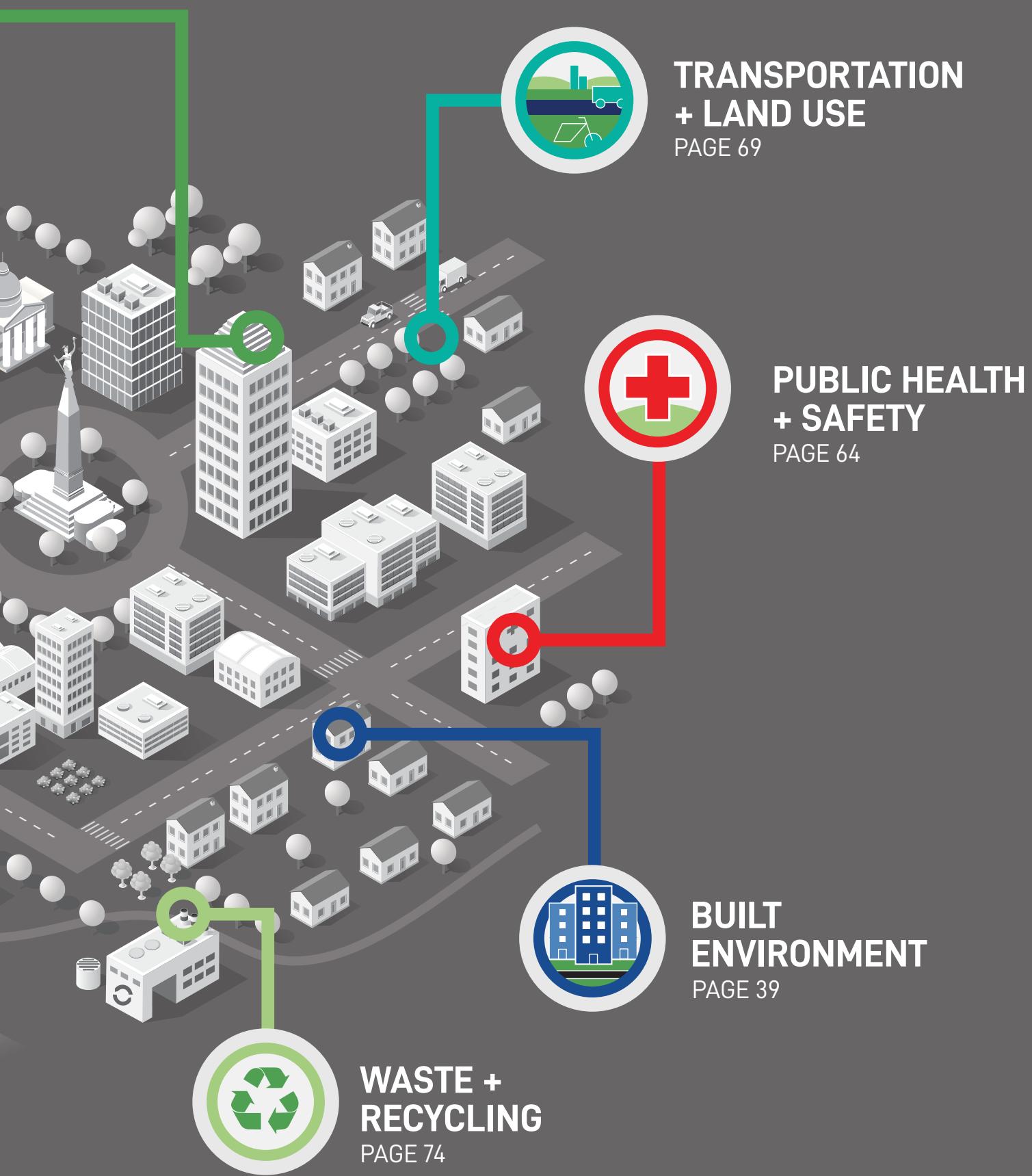


NATURAL
RESOURCES
PAGE 59



FOOD +
URBAN AGRICULTURE
PAGE 54





ACTION PLAN SUMMARY MATRIX

OVERARCHING GOALS

1 Increase community resilience by prioritizing equity in policy, planning and project implementation.

2 Achieve net zero GHG emissions by 2050.

Thrive Indianapolis is organized with two objectives for each plan element and three to five actions under each objective. This matrix includes all the actions by plan element and objective with their initial cost information and the benefits to the overarching goals. More details can be found in the respective plan element sections of this document.

ACTIONS	Initial Costs to Implementers	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Area Populations	Other Thrive Plan Elements Impacted
BUILT ENVIRONMENT				
BE:1 All new buildings meet basic green building standards,* and programs to increase energy and water efficiency are actively pursued in existing buildings.				
BE:1A Develop an energy benchmarking and disclosure policy for municipal and commercial buildings with the first-year disclosure completed by the end of 2020.	\$			
BE:1B Require all new commercial construction to meet electric vehicle (EV) readiness requirements for 20% of parking spaces by 2020, with the goal of significantly increasing charging infrastructure at businesses and workplaces.	\$			
BE:1C Establish low-interest loans for energy efficiency and renewable energy improvements in new and existing buildings, sustained by a revolving loan fund from a combination of financing sources.	\$\$\$			
BE:2 All new infrastructure is designed, built and maintained to be resilient to the anticipated impacts of climate change, and investments are prioritized based on the 2018 Vulnerability Assessment.				
BE:2A Systematically integrate climate change projections into all future capital projects by 2020, ensuring new infrastructure can withstand current and projected impacts.	\$\$			
BE:2B Improve onsite stormwater retention programs by incentivizing rain barrels, rain gardens and green roofs. Register 500 residential and nonresidential properties in the stormwater credit program by 2022.	\$\$			
BE:2C Evaluate the effectiveness of the 2016 Green Factor score-based zoning requirement to determine opportunities for improvement.	\$			
BE:2D Increase street sweeping operations throughout the county to improve stormwater drainage.	\$\$			

LEGEND

\$ = capital cost (<\$1m) / program implementation (<\$100k)
 \$\$ = capital cost (\$1-5m) / program implementation (\$100-500k)
 \$\$\$ = capital cost (>\$5m) / program implementation (>\$500k)

FAVORABLE

NEUTRAL

UNFAVORABLE

*i.e., basic requirements of green building programs that focus on minimum energy and water standards



ACTIONS

Initial Costs to Implementers	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Area Populations	Other Thrive Plan Elements Impacted
-------------------------------	-------------------------	---	-------------------------------------

ECONOMY

EC:1	Develop additional pathways to employment and the delivery of financial empowerment tools, while taking into account local social vulnerabilities.			
EC:1A	Expand partnerships with sustainability-related businesses and organizations to offer green job opportunities to Indianapolis youth through Project Indy by 2021.	\$	●	●
EC:1B	Collaborate with workforce development partners to pilot a green jobs training program by 2022.	\$\$	●	●
EC:1C	Leverage and increase participation in existing workforce development and other related programs that provide residents with the tools to be financially sustainable and minimize chronic stressors.	\$\$	●	●
EC:1D	Pilot a green job incubator or co-working space by 2025.	\$	●	●
EC:2	Collaborate with anchor institutions and businesses to target local investments and provide family-sustaining wages.			



ENERGY

EN:1	20% of energy consumed in Indianapolis comes from renewable sources by 2025.			
EN:1A	By 2020, the City of Indianapolis will transition 25% of municipal energy usage to renewable sources, while creating a pathway towards 100% renewable energy use by 2028.	\$\$\$	●	●
EN:1B	In partnership with Indianapolis Power & Light Company (IPL), Citizens Energy Group (CEG) and other stakeholders, develop a roadmap to source 100% of the community's energy with renewables by 2050.	\$	●	●
EN:1C	Deploy strategies that allow our community to overcome existing hurdles to solar energy installations, including education on and assistance with solar cooperatives and bulk purchasing contracts. Pilot one community solar program by 2025.	\$\$	●	●



ENERGY

ACTIONS

Initial Costs to Implementers	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Area Populations	Other Thrive Plan Elements Impacted
-------------------------------	-------------------------	---	-------------------------------------

EN:2 The energy grid is more resilient to shocks and stressors through the use of microgrids and increased efficiency.

EN:2A In partnership with IPL, pilot a microgrid or self-contained power system in an area of greatest need.

\$\$



EN:2B Pilot the city's first energy resource center by 2020, acting as a resilience hub for the neighborhood. In partnership with local utilities, this center would offer information about available energy efficiency incentives and rebates.

\$



EN:2C Identify and eliminate barriers to engagement in IPL's Income-Qualified Weatherization Program and other efficiency programs focused on low-income households.

\$



FOOD & URBAN AGRICULTURE

FA:1 Food insecurity in Indianapolis is reduced 20% by 2025, compared to the 2017 baseline.

FA:1A Subsidize the cost of EBT equipment, removing a barrier for markets and grocers to accept Supplemental Nutrition Assistance Program (SNAP) vouchers.

\$\$



FA:1B Advocate to increase access to SNAP benefits, including removing the asset limit from SNAP qualifications.

\$



FA:1C Assess available incentives and maintain City's current related grants focused on community-driven food solutions like co-ops and community supported agriculture programs (CSAs) in food deserts by 2021.

\$



FA:2 Increase purchasing of Indiana-grown food 10% by 2025.

FA:2A Support local Healthy Food Financing Initiatives, providing seed funding for the development of new healthy food access projects in underserved communities.

\$\$



FA:2B Identify funding to support the expansion of farmers markets and reduce barriers that currently prevent markets from offering extended hours and operating year-round.

\$



FA:2C Encourage the diversification of urban agricultural growing methods (e.g., hydroponic, aquaponic, greenhouse) by 2022.

\$



FA:2D Establish a Farmland Bank through a public-private partnership to acquire agricultural land to lease, with consideration of racial inequities.

\$\$





ACTIONS

Increased
Resilience for
Socially
Vulnerable
Area
Populations

Other Thrive Plan
Elements Impacted

NATURAL RESOURCES

NR:1 Green spaces and trees are sustained and equitably expanded.

		Initial Costs to Implementers	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Area Populations	Other Thrive Plan Elements Impacted
NR:1A	Implement a policy to ensure the use of 100% native plants and proactive removal of invasive species in parks and along greenways by 2022.	\$	●	●	
NR:1B	Increase green spaces to improve stormwater infiltration and ensure appropriate ongoing maintenance by 2022.	\$\$\$	●	●	
NR:1C	Create a per capita spending goal of at least \$50 (from the existing \$26) to maintain the parks and recreation system through applicable creative financing options, and develop steps to move towards this goal.	\$\$	●	●	
NR:1D	Plant 30,000 additional native trees by 2025 to increase canopy, reduce runoff and mitigate against the urban heat island, particularly in those neighborhoods in most need.	\$\$	●	●	

NR:2 Air and water quality meet or exceed federal standards.

NR:2A	Analyze traffic signal upgrades, roundabouts and other congestion control measures in Indianapolis, and develop an implementation plan by 2022.	\$\$	●	●	
NR:2B	Develop and deploy a more robust stormwater and water quality education program, including addressing chemicals in landscaping, by 2022.	\$\$	●	●	
NR:2C	Reduce the burning of gasoline and diesel by increasing the use of transportation alternatives through the Indy Moves Plan and promoting idling reduction programs.	\$\$	●	●	
NR:2D	Through the Energy Benchmarking program, promote initiatives that improve water conservation with 1,000 participating businesses by 2022.	\$	●	●	



PUBLIC HEALTH & SAFETY

PH:1 Upward trend in the percentage of the population that reports being active, healthy and happy.

		Initial Costs to Implementers	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Area Populations	Other Thrive Plan Elements Impacted
PH:1A	Collaboratively engage the Marion County Public Health Department and relevant local government departments or agencies to integrate health considerations (typically referred to as "Health in All Policies") into local plans and policies related to the built environment, physical activity and access to fresh food with equitable benefits for everyone in the community before 2024.	\$	●	●	
PH:1B	Develop a Community Health Improvement Plan to strengthen equity in the delivery of health services and improve community health before 2020. This will include addressing issues around the social determinants of health, mental health and obesity/diabetes.	\$	●	●	
PH:1C	Increase reach of information and education to the public regarding health issues, including climate-related illnesses related to more anticipated heat, ozone and mosquitoes.	\$\$	●	●	



ACTIONS

Increased Resilience for
Socially Vulnerable
Area Populations

Other Thrive Plan
Elements Impacted

PUBLIC HEALTH & SAFETY

PH:2 Increase community resilience through public health and safety measures that are equitably deployed.

PH:2A Increase the number of residents with emergency preparedness resources and training in our most vulnerable neighborhoods based on the 2018 Vulnerability Assessment before 2022.

\$



PH:2B Launch a coordinated preparedness campaign by 2022 - with City departments, emergency management agencies and preparedness organizations - that encourages residents to take actions that improve their ability to protect themselves and our community in advance of a crisis based on 2018 Multi-Hazard Mitigation Plan recommendations.

\$\$



PH:2C Pilot the city's first energy resource center with physical, web and mobile resources, acting as a resilience hub for the neighborhood before 2021. Residents will have access to information that better prepares them for natural disasters and other hazards.

\$



PH:2D Expand workforce preparedness training opportunities and programs including climate change information for physicians and other public health providers, to quickly restore essential city services after a crisis before 2022.

\$\$



TRANSPORTATION & LAND USE

TL:1 The percentage of residents with affordable, multimodal transportation options has increased at least 15% over 2016 levels by 2025, specifically among those communities identified as most vulnerable through the Transportation Equity Index.

TL:1A Through equitable redesign, extended hours and completing construction on the bus rapid transit lines, IndyGo will increase transit service by 70% and increase ridership by 15%.

\$\$\$



TL:1B Implement existing transportation plans to increase the miles of sidewalks, bikeways, trails and complete streets and the number of intersections with safety and operational improvements.

\$\$



TL:1C Increase transit-oriented development through high density housing, access to employment opportunities and economic growth with measurably less consumption of energy.

\$\$\$



TL:1D Encourage local businesses to adopt commuter incentives for employees, to promote alternative modes of commuting such as walking, biking, and transit.

\$



TL:1E Continue to identify opportunities to create temporary pedestrian-only zones in our cultural and entertainment districts by 2020.

\$\$



ACTIONS	Initial Costs to Implementers	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Area Populations	Other Thrive Plan Elements Impacted
TL:2 Increase electric vehicle (EV) ownership 300% by 2025 from the 2017 baseline of 760 vehicles.				
TL:2A Create local EV educational resources, pilot low-cost EV parking downtown, identify downtown fast charging locations and launch an EV corporate fleet challenge.	\$\$			
TL:2B Develop a comprehensive, community-wide EV / autonomous vehicle (AV) readiness plan by 2020.	\$\$			
TL:2C Convert remaining IndyGo fleet to electric by 2031.	\$\$\$			
TL:2D Host six in-person educational opportunities for Marion County residents to increase awareness of benefits of EV ownership by 2020.	\$			



WASTE & RECYCLING

WR:1 Support a "reduce first" approach to waste, and actively promote waste minimization policies, programs and events.				
WR:1A Develop waste minimization strategies for all large-scale, public events by 2022.	\$\$			
WR:1B Through the Thriving Schools Challenge, promote and support programs that reduce waste in schools by 2022.	\$			
WR:1C Educate the public on single-use plastics and the direct impacts these types of products have on our natural resources.	\$			
WR:1D Support businesses that divert waste by providing new life for used products.	\$			
WR:2 Increase community-wide waste diversion rate by 40% by 2030.				
WR:2A Provide universal residential curbside recycling to all Indianapolis residents by 2025.	\$\$\$			
WR:2B Offer subscription curbside composting to all Indianapolis residents by 2025.	\$\$\$			
WR:2C Analyze construction and demolition waste generated and propose reduction and diversion measures by 2022.	\$\$			
WR:2D Provide multi-lingual, multi-format recycling and composting educational materials at the local energy resource centers and resilience hubs.	\$			



BUILT ENVIRONMENT

OVERVIEW

Buildings, roads, bridges and underground infrastructure are the lifeline of a community. These assets deliver water, provide shelter and create access to jobs, schools, open spaces and so many more basic needs. However, our development patterns and the materials we used to build in the past have impacted our environment and our health. These challenges are only exacerbated as the climate continues to be more unstable. We now have an opportunity to rethink our approach to infrastructure in a way that is in harmony with nature, healthy for our community members and more resilient to climate change.

OUR VISION

Indianapolis constructs and maintains buildings and infrastructure that provide safe, comfortable and healthy environments for all.

WHERE WE STAND IN 2018

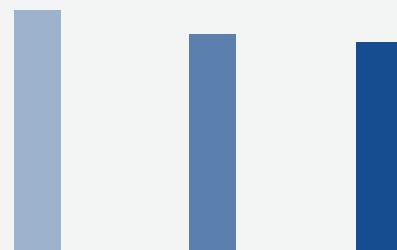
Buildings account for 66% of Indianapolis' community-wide GHG emissions. However, through successful building energy efficiency programs - like Indianapolis Power & Light's Home Energy Assessment Program and energy generation conversions from coal to natural gas - GHG emissions from the Building sector were reduced by 17% from 2010 to 2016.²⁷



green building (noun)

A building that is planned, designed, constructed and operated “with several central, foremost considerations: energy use, water use, indoor environmental quality, material selection and the building's effects on its site.”²⁶

GHG Emissions from Buildings²⁹ in MTCO₂e



²⁶ Kriss, 2014

²⁷ City of Indianapolis & Marion County, 2018

²⁸ U.S. EPA & U.S. DOE, 2018; U.S. Green Buildings Council, 2018

²⁹ City of Indianapolis & Marion County, 2018

INDY BEST PRACTICE: INDY 3.0

Mayor Joe Hogsett believes that government needs to be more accessible and less costly. Indy 3.0 is how we can re-imagine and modernize local government for the 21st century. This initiative will deal with the city's government buildings; technology, innovation and accessibility to city services; public safety; streets maintenance; and infrastructure.

"With the launch of Indy 3.0 [April 2018], we acknowledge that the future of serving Indianapolis residents looks a lot more like an iPhone than it does a 25 story office building," said Mayor Hogsett. "And rather than ignore this reality, it's time to embrace the challenge and make a pledge to taxpayers that we will no longer penalize the present and fight the future, by subsidizing the past."

LEADING BY EXAMPLE

The City of Indianapolis has committed that all newly constructed municipal buildings built after 2018 meet LEED Certified or equivalent standards.



BUILT ENVIRONMENT

41

OUR PLAN FOR 2025

BUILT ENVIRONMENT OBJECTIVE 1

All new buildings meet basic green building standards,* and programs to increase energy and water efficiency are actively pursued in existing buildings.

*i.e., basic requirements of green building programs that focus on minimum energy and water standards

IMPLEMENTATION BENEFITS:

ACTION	POTENTIAL FUNDING SOURCE(S)	INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	IMPLEMENTATION BENEFITS:			
				Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation	GHG Reduction Potential
BE:1A Develop an energy benchmarking and disclosure policy for municipal and commercial buildings with the first-year disclosure completed by the end of 2020.	American Cities Climate Challenge grant	\$	\$	●	●	●	●
BE:1B Require all new commercial construction to meet electric vehicle (EV) readiness requirements for 20% of parking spaces by 2020, with the goal of significantly increasing charging infrastructure at businesses and workplaces.	Private corporations	\$	\$	●	●	●	●
BE:1C Establish low-interest loans for energy efficiency and renewable energy improvements in new and existing buildings, sustained by a revolving loan fund from a combination of financing sources.	Bond Issue, general fund, revolving loan funds can be capitalized through state bond proceeds, treasury investments or ratepayer funds.	\$\$\$	\$\$\$	●	●	●	●

LEGEND

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● FAVORABLE ● NEUTRAL ● UNFAVORABLE



BUILT ENVIRONMENT

OUR PLAN FOR 2025

BUILT ENVIRONMENT OBJECTIVE 2

All new infrastructure is designed, built and maintained to be resilient to the anticipated impacts of climate change, and investments are prioritized based on the 2018 Vulnerability Assessment.

IMPLEMENTATION BENEFITS:

ACTION	POTENTIAL FUNDING SOURCE(S)	INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	IMPLEMENTATION BENEFITS:				
				Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Areas/ Populations
BE:2A Systematically integrate climate change projections into all future capital projects by 2020, ensuring new infrastructure can withstand current and projected impacts.	Evaluation of current permits and fees	\$\$	\$\$\$	●	●	●	●	●
BE:2B Improve onsite stormwater retention programs by incentivizing rain barrels, rain gardens and green roofs. Register 500 residential and nonresidential properties in the stormwater credit program by 2022.	Evaluation of current permits and fees	\$\$	\$\$\$	●	●	●	●	●
BE:2C Evaluate the effectiveness of the 2016 Green Factor score-based zoning requirement to determine opportunities for improvement.	Evaluation of current permits and fees	\$	\$	●	●	●	●	●
BE:2D Increase street sweeping operations throughout the county to improve stormwater drainage.	Evaluation of current permits and fees	\$\$	\$\$\$	●	●	●	●	●

LEGEND

- \$ = capital cost (<\$1m) / capital investment annual maintenance (<\$250k) / program implementation (<\$100k) / program annual maintenance (<\$50k)
- \$\$ = capital cost (\$1-5m) / capital investment annual maintenance (\$250k-\$1m) / program implementation (\$100-500k) / program annual maintenance (\$50-100k)
- \$\$\$ = capital cost (>\$5m) / capital investment annual maintenance (>\$1m) / program implementation (>\$500k) / program annual maintenance (>t\$100k)
- FAVORABLE ● NEUTRAL ● UNFAVORABLE



TRACKING OUR PROGRESS

To ensure we are on a path to achieve our goals, a number of metrics and associated targets have been identified for the Built Environment plan element. Below are a sample of these metrics. We anticipate these metrics will be updated as more data becomes available. The performance metrics will be reported every three years, and the output metrics will be reported annually.

BASELINE DATA	BASELINE YEAR	2025 TARGET
---------------	---------------	-------------

PERFORMANCE METRICS (reported every three years)

GHG emissions from buildings ³⁰	9,638,165* mtCO ₂ e	2016	7,710,532 mtCO ₂ e
Total building energy use ³¹	88,509,707 MMBTU	2016	70,807,766 MMBTU
% Impervious Area ³²	22.6%	2013	20.3%

OUTPUT METRICS (reported annually)

# of green buildings (i.e., LEED certified or Energy Star Rated)* ³³	249	2018	498
# of buildings disclosing energy use annually	-	-	1,000
# of publicly available EV charging stations ³⁴	170	2018	300

*Indianapolis was able to make a 17% reduction in its GHG emissions from buildings from 2010 to 2016, primarily due to the conversion of two coal plants and a coal-powered steam plant to natural gas and implementation of energy efficiency measures.

³⁰ City of Indianapolis & Marion County, 2018

³¹ Ibid

³² City of Indianapolis Department of Public Works, 2013

³³ U.S. EPA & U.S. DOE, 2018; U.S. Green Buildings Council, 2018

³⁴ ChargeHub, 2018

ECONOMY



OVERVIEW

A city's economy dictates the opportunities available to its community members. Indianapolis has seen a transition from manufacturing to more service and computer-based jobs. A thriving Indianapolis will ensure that our industry sectors are diverse, can be supported by our local skills, actively practice and promote sustainability and pay a family-sustaining wage.

OUR VISION

Indianapolis is a world-class city with a resilient, diverse and inclusive economy that ensures good paying and fulfilling jobs as well as upward **economic mobility** opportunities for all.

WHERE WE STAND IN 2018

It has been said that there are two sides to Indianapolis' economy. We have made gains with high tech and young professionals, yet struggled to engage our existing residents and their skills. Our focus is now on looking at all our assets and promoting industries that support everyone and pay a family sustaining wage.

economic mobility

(noun)

"The ability of people to move up the economic ladder within a lifetime or from one generation to the next."³⁵

9.8%

Total Rate of Unemployment

Unemployment Rate by Ethnicity in 2015³⁶

African American	14.9%
White/Caucasian	7.9%
Asian	7.7%
Hispanic/Latinx	7.6%

\$48,089

Median Income per Household

Median Household Income by Ethnicity in 2015³⁷

White/Caucasian	\$55,146
Asian	\$53,015
Hispanic/Latinx	\$38,630
African American	\$36,245

INDY BEST PRACTICE: PROJECT INDY



Project Indy represents a network of community organizations, employers and corporate partners who provide job opportunities, soft-skill development and job-readiness training to in-school and out-of-school youth in Marion County. The effort is designed to connect employers to young adults for summer jobs, part-time and full-time opportunities. Through this program, young adults are kept busy and safe while contributing to the community and local economy.

3,398 young adults registered in 2017

2,000 were hired via employer partners³⁸

³⁵ Isaacs, Sawhill & Haskins, 2008

³⁷ Ibid

³⁶ The Polis Center at IUPUI, 2015

³⁸ EmployIndy, 2017



OUR PLAN FOR 2025

ECONOMY OBJECTIVE 1

Develop additional pathways to employment and the delivery of financial empowerment tools, while taking into account local social vulnerabilities.

IMPLEMENTATION BENEFITS:

ACTION	POTENTIAL FUNDING SOURCE(S)	INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	IMPLEMENTATION BENEFITS:				
				Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Areas/Populations
EC:1A Expand partnerships with sustainability-related businesses and organizations to offer green job opportunities to Indianapolis youth through Project Indy by 2021.	Grants	\$	\$	●	●	●	●	●
EC:1B Collaborate with workforce development partners to pilot a green jobs training program by 2022.	Grants	\$\$	\$	●	●	●	●	●
EC:1C Leverage and increase participation in existing workforce development and other related programs that provide residents with the tools to be financially sustainable and minimize chronic stressors.	Grants	\$\$	\$	●	●	●	●	●
EC:1D Pilot a green job incubator or co-working space by 2025.	Grants	\$	\$	●	●	●	●	●

LEGEND

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● FAVORABLE ● NEUTRAL ● UNFAVORABLE



OUR PLAN FOR 2025

ECONOMY OBJECTIVE 2

Collaborate with anchor institutions and businesses to target local investments and provide family-sustaining wages.

IMPLEMENTATION BENEFITS:

ACTION	POTENTIAL FUNDING SOURCE(S)	INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Areas/ Populations
EC:2A Work with businesses to develop policies for local hiring, contracting and procurement to ensure that economic opportunities generated by employers are accessible to nearby communities.	Evaluation of current permits and fees	\$	\$	●	●	●	●	●
EC:2B Develop and pilot a green business / energy efficiency training program for the re-entry population with local workforce development and re-entry partners by 2022.	Re-entry Employment Opportunities (REO) grants, Environmental Workforce Development and Job Training (EWDJT) grants	\$\$	\$\$	●	●	●	●	●
EC:2C Expand partnerships to encourage reintegration and successful re-entry of previously incarcerated individuals.	Re-entry Employment Opportunities (REO) grants	\$	\$	●	●	●	●	●

LEGEND

● FAVORABLE ● NEUTRAL ● UNFAVORABLE
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SUCCESS STORY: SECOND HELPINGS



In 1998, three chefs created Second Helpings Inc. to deal with four major issues in the Greater Indianapolis area: food waste, hunger, job training and a place the local food service industry could go to find trained labor. Second Helpings also works to identify underserved populations and areas of the city that still need access to meals. Its training program involves those that need a life-changing opportunity.

Over the past 20 years their results are impressive:

31,237,924

lbs. of food kept out
of landfills

12,160,353

meals to those in
need

819

students have completed their
Culinary Job Training program

³⁹ All above data: Second Helpings, 2017

LEADING BY EXAMPLE

In an effort to do its part to create demand for sustainable and local products, the City of Indianapolis will develop a green purchasing policy.





TRACKING OUR PROGRESS

To ensure we are on a path to achieve our goals, a number of metrics and associated targets have been identified for the Economy plan element. Below are a sample of these metrics. We anticipate these metrics will be updated as more data becomes available. The performance metrics will be reported every three years, and the output metrics will be reported annually.

BASELINE DATA	BASELINE YEAR	2025 TARGET
PERFORMANCE METRICS (reported every three years)		
% of population that is a high school graduate or higher ⁴⁰	85.7%	2016
Unemployment rate by ethnicity ⁴¹	African Americans - 14.9% White/Caucasian - 7.9% Asian - 7.7% Hispanic/Latinx - 7.6%	2015
% of population living at or below the poverty line ⁴²	20.5%	2016
OUTPUT METRICS (reported annually)		
% of large corporations committing to pay a family sustaining wage to all employees	N/A	N/A
		100%

⁴⁰ U.S. Census Bureau, 2016

⁴¹ The Polis Center at IUPUI, 2015

⁴² U.S. Census Bureau, 2016



ENERGY

OVERVIEW

Changing how we produce and consume energy provides one of the best opportunities to reduce greenhouse gas (GHG) emissions and create a more resilient community. By replacing fossil fuels with renewable energy options, such as solar and wind, Indianapolis can leapfrog other cities across the nation as a leader on climate action.

OUR VISION

Energy comes from clean, renewable sources that are affordable and accessible to all members of our community.

WHERE WE STAND IN 2018

When using fossil fuels, the energy that we generate in our local power plants and use to light, heat and cool our homes and businesses contributes to climate change by emitting a significant amount of GHGs.

There has been a lot of progress made in Indianapolis to reduce our GHG emissions - the most significant being the conversion of two coal-fired power plants and a coal-fired steam plant to natural gas. This resulted in a 60% reduction in GHG emissions related to energy generation. To reach our carbon neutrality goal, we will continue to increase the use of renewable energy throughout our community.⁴⁴

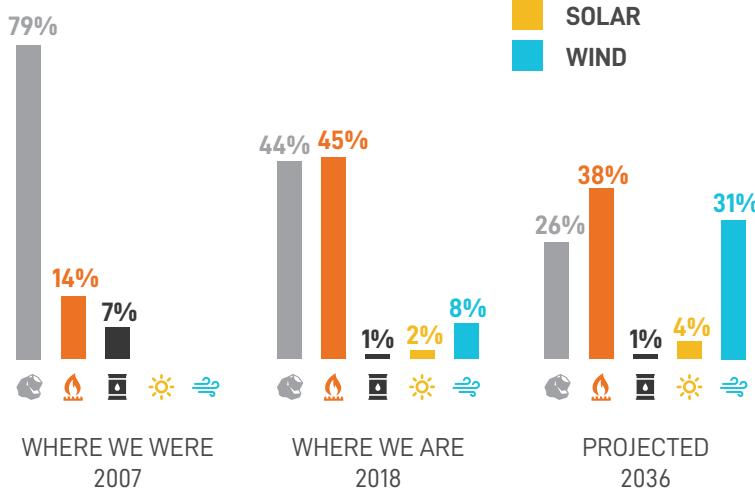
microgrid

(noun)

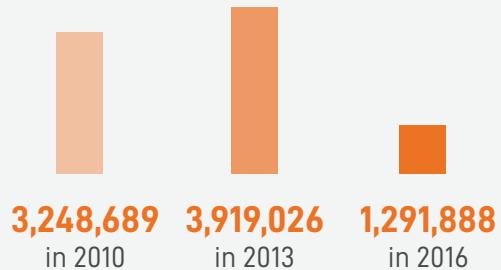
"A microgrid is a self-contained power system confined to a small geographic area."⁴³

Electric Energy Sources⁴⁵

Percent generation capacity



Energy Generation GHG Emissions in MTCO₂e⁴⁶



⁴³ Duke Energy Corporation, 2017

⁴⁴ City of Indianapolis & Marion County, 2018

⁴⁵ AES Corporation, 2018

⁴⁶ City of Indianapolis & Marion County, 2018

Bloomberg American Cities Climate Challenge

American Cities Climate Challenge

In October 2018, Indianapolis was named one of 25 cities in the country to share a \$70 million prize to accelerate efforts to reduce carbon emissions and prepare for the effects of climate change. For Indianapolis, this will launch a building energy benchmarking program and a Green Business Challenge and accelerate the adoption of electric vehicles throughout the city.

LEADING BY EXAMPLE

The City of Indianapolis seeks to establish a revolving loan fund for energy and water efficiency upgrades in municipal buildings.

OUR PLAN FOR 2025

ENERGY OBJECTIVE 1

20% of energy consumed in Indianapolis comes from renewable sources by 2025.

ACTION	POTENTIAL FUNDING SOURCE(S)	IMPLEMENTATION BENEFITS:						
		INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Areas/ Populations
EN:1A By 2020, the City of Indianapolis will transition 25% of municipal energy usage to renewable sources, while creating a pathway towards 100% renewable energy use by 2028.	Evaluation of current permits and fees, grants	\$\$\$	\$\$\$	●	●	●	●	●
EN:1B In partnership with Indianapolis Power & Light Company (IPL), Citizens Energy Group (CEG) and other stakeholders, develop a roadmap to source 100% of the community's energy with renewables by 2050.	Evaluation of current permits and fees	\$	\$	●	●	●	●	●
EN:1C Deploy strategies that allow our community to overcome existing hurdles to solar energy installations, including education on and assistance with solar cooperatives and bulk purchasing contracts. Pilot one community solar program by 2025.	DOE Energy Efficiency and Renewable Energy (EERE) funds, EPA Multipurpose Grants, PACE	\$\$	\$\$	●	●	●	●	●

LEGEND

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● FAVORABLE ● NEUTRAL ● UNFAVORABLE

OUR PLAN FOR 2025

ENERGY OBJECTIVE 2

The energy grid is more resilient to shocks and stressors through the use of microgrids and increased efficiency.

IMPLEMENTATION BENEFITS:

ACTION	POTENTIAL FUNDING SOURCE(S)	INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	IMPLEMENTATION BENEFITS:
EN:2A In partnership with IPL, pilot a microgrid or self-contained power system in an area of greatest need.	DOE EERE funds, IPL investment	\$\$	\$\$\$	Equity Benefits: Reducing Disparities Positive Public Health Impacts Potential for Net Job Creation GHG Reduction Potential Increased Resilience for Socially Vulnerable Areas/ Populations
EN:2B Pilot the city's first energy resource center by 2020, acting as a resilience hub for the neighborhood. In partnership with local utilities, this center would offer information about available energy efficiency incentives and rebates.	American Cities Climate Challenge grant	\$	\$	Equity Benefits: Reducing Disparities Positive Public Health Impacts Potential for Net Job Creation GHG Reduction Potential Increased Resilience for Socially Vulnerable Areas/ Populations
EN:2C Identify and eliminate barriers to engagement in IPL's Income-Qualified Weatherization Program and other efficiency programs focused on low-income households.	Evaluation of current permits and fees	\$	\$	Equity Benefits: Reducing Disparities Positive Public Health Impacts Potential for Net Job Creation GHG Reduction Potential Increased Resilience for Socially Vulnerable Areas/ Populations

LEGEND

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 \$\$\$ = capital cost (>\$5m) / capital investment annual maintenance (>\$1m) / program implementation (>\$500k) / program annual maintenance (>\$100k)

 FAVORABLE  NEUTRAL  UNFAVORABLE



TRACKING OUR PROGRESS

To ensure we are on a path to achieve our goals, a number of metrics and associated targets have been identified for the Energy plan element. Below are a sample of these metrics. We anticipate these metrics will be updated as more data becomes available. The performance metrics will be reported every three years, and the output metrics will be reported annually.

BASELINE DATA	BASELINE YEAR	2025 TARGET
PERFORMANCE METRICS (reported every three years)		
% of municipal energy use from renewable energy sources ⁴⁷	8%	2016
% renewable energy generation ⁴⁸	7%	2017
GHG emissions from energy generation within Indianapolis ⁴⁹	1,291,888 mtCO ₂ e	2016
		26%



FAST FACT: Renewable Energy

Indianapolis has the 4th highest solar per capita of 20 major cities with 36 operating solar farms.⁵⁰

⁴⁷ Indianapolis Power & Light Company, 2018

⁴⁸ Ibid

⁴⁹ City of Indianapolis & Marion County, 2018

⁵⁰ Environment America, 2018



FOOD & URBAN AGRICULTURE

OVERVIEW

Our community's ability to meet its basic needs - such as accessing healthy food every day - is directly correlated to and an indicator of our overall sustainability and resilience. Unfortunately, this is one of the chronic stressors that impacts many adults and children throughout Marion County. The Food & Urban Agriculture plan element focuses on addressing access to healthy food and increasing **food security**.

OUR VISION

All residents have access to healthy, affordable food, and we have created pathways to grow our agricultural sector.

food security (noun)

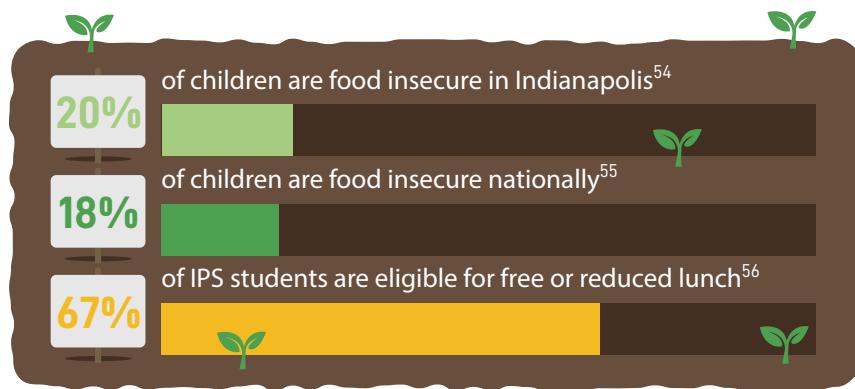
"Food security means access by all people at all times to enough food for an active, healthy life."⁵¹

WHERE WE STAND IN 2018

While progress has been made, we still have work to do given that 20% of children in Indianapolis are food insecure. According to the Indy Food Council's 2018 State of the Food System Report, "In 2014 21% of Marion County residents were food insecure, using some form of food assistance or had uncertainty about food supply."⁵² We also know that access to healthy, affordable food is inequitable with a disproportionate percentage of people of color experiencing food insecurity.

INDY BEST PRACTICE: Summer Servings Program

The Indy Parks Summer Servings program provides 175,000 meals every year to Marion County youth.⁵³



⁵¹ USDA, 2017

⁵² Indy Food Council, 2018

⁵³ Indy Parks, 2018

⁵⁴ STAR Communities, 2015

⁵⁵ Ibid

⁵⁶ United Way of Central Indiana, The Polis Center at IUPUI & SAVI, 2016



OUR PLAN FOR 2025

FOOD & URBAN AGRICULTURE OBJECTIVE 1

Food insecurity in Indianapolis is reduced 20% by 2025, compared to the 2017 baseline.

IMPLEMENTATION BENEFITS:

ACTION

POTENTIAL FUNDING SOURCE(S)

INITIAL COSTS TO IMPLEMENTERS

ONGOING COSTS TO IMPLEMENTERS

Equity Benefits: Reducing Disparities

Positive Public Health Impacts

Potential for Net Job Creation

GHG Reduction Potential

Increased Resilience for Socially Vulnerable Areas/ Populations

FA:1A

Subsidize the cost of EBT equipment, removing a barrier for markets and grocers to accept Supplemental Nutrition Assistance Program (SNAP) vouchers.

USDA Food Insecurity Nutrition Incentive (FINI) Grant Program

\$\$

\$\$



FA:1B

Advocate to increase access to SNAP benefits, including removing the asset limit from SNAP qualifications.

Evaluation of current permits and fees, grants

\$

\$



FA:1C

Assess available incentives and maintain City's current related grants focused on community-driven food solutions like co-ops and community supported agriculture programs (CSAs) in food deserts by 2021.

HUD Choice Neighborhoods Planning Grants, USDA Healthy Food Financing Initiative (HFFI) Grants

\$

\$



LEGEND

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 \$\$\$ = capital cost (>\$5m) / capital investment annual maintenance (>\$1m) / program implementation (>\$500k) / program annual maintenance (>\$100k)

● FAVORABLE ● NEUTRAL ● UNFAVORABLE



OUR PLAN FOR 2025

FOOD & URBAN AGRICULTURE OBJECTIVE 2

Increase purchasing of Indiana-grown food 10% by 2025.

ACTION	POTENTIAL FUNDING SOURCE(S)	IMPLEMENTATION BENEFITS:				
		INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation
FA:2A Support local Healthy Food Financing Initiatives, providing seed funding for the development of new healthy food access projects in underserved communities.	US HHS Healthy Food Financing Initiative (HFFI)	\$\$	\$\$	●	●	●
FA:2B Identify funding to support the expansion of farmers markets and reduce barriers that currently prevent markets from offering extended hours and operating year-round.	USDA Farmers Market Promotion Program (FMPP), USDA Local Food Promotion Program (LFPP)	\$	\$	●	●	●
FA:2C Encourage the diversification of urban agricultural growing methods (e.g., hydroponic, aquaponic, greenhouse) by 2022.	Evaluation of current permits and fees	\$	\$	●	●	●
FA:2D Establish a Farmland Bank through a public-private partnership to acquire agricultural land to lease, with consideration of racial inequities.	USDA Agricultural Conservation Easement Program (ACEP) Grants, private funding	\$\$	\$\$	●	●	●

LEGEND

- FAVORABLE
 - NEUTRAL
 - UNFAVORABLE
- =\$ capital cost (<\$1m) / capital investment annual maintenance (<\$250k) / program implementation (<\$100k) / program annual maintenance (<\$50k)
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INDY BEST PRACTICE: Fresh Produce Pop-Up



In an effort to address food insecurity, the City and its partners opened a fresh produce market at the downtown IndyGo transit center. The market, which will run Fridays from April through October, will accept EBT and SNAP benefits to enhance accessibility for all. The City will invest more than \$20,000 in this program through 2019.⁵⁷

⁵⁷ Barrett, 2018

LEADING BY EXAMPLE

In an effort to support local farmers, keep money in the community and reduce greenhouse gas emissions, the City of Indianapolis and Marion County have set a goal to increase the purchase of local food for City contracts.





TRACKING OUR PROGRESS

To ensure we are on a path to achieve our goals, a number of metrics and associated targets have been identified for the Food & Urban Agriculture plan element. Below are a sample of these metrics. We anticipate these metrics will be updated as more data becomes available. The performance metrics will be reported every three years, and the output metrics will be reported annually.

BASELINE DATA	BASELINE YEAR	2025 TARGET
PERFORMANCE METRICS (reported every three years)		
Community members who are food insecure and identify as a person of color ⁵⁸	9%	2015
Total community members who are food insecure including those who are utilizing food assistance programs ⁵⁹	21%	2017

⁵⁸ USDA, 2015

⁵⁹ Indy Food Council, 2018



NATURAL RESOURCES

OVERVIEW

Our natural resources are one of Indianapolis' greatest assets. Aside from the understood value of clean air and water, natural spaces offer the following benefits: help lower energy use; reduce urban heat island; minimize impacts of flooding; promote safe neighborhoods; and support mental and physical health. By ensuring our air and water are clean and that natural spaces are a walk away, we help all our neighbors get that much closer to a more resilient future.

OUR VISION

Natural Resources are clean, conserved and restored where possible and accessible for all members of the community to enjoy.

WHERE WE STAND IN 2018

Despite having a very limited budget, Indy Parks has managed to operate and maintain a large number of parks and facilities across Marion County.



Marion County's
tree canopy coverage is 33%⁶¹



Indy's different neighborhoods
had tree canopies ranging
from 3-78% coverage⁶⁶



the number of days

exceeding Federal Air Quality Standards in Indianapolis in 2017⁶⁰



211 parks⁶²



125 playgrounds⁶³



135 miles of trails⁶⁴



Indianapolis' urban forests provide stormwater control, carbon sequestration, energy reduction and air pollution filtration resulting in a \$10 million annual benefit.⁶⁵



FAST FACT: Bottled Water

The production of bottled water uses 17 million barrels of oil each year, which is enough to fill a million cars for a year.⁶⁷

⁶⁰ City of Indianapolis Office of Sustainability, 2017

⁶¹ Keep Indianapolis Beautiful, 2015

⁶² City of Indianapolis & Marion County, 2018

⁶³ Ibid

⁶⁴ Ibid

⁶⁵ Reynolds et al., 2018

⁶⁶ KIB, 2015

⁶⁷ Pacific Institute, 2007

INDY BEST PRACTICE: KNOZONE

Knozone is an initiative to make Central Indiana one of the Midwest's most sustainable, livable regions. Through education, resources and guidance for taking action, Knozone works with residents, schools and businesses to improve our region's air quality, making Central Indiana a great place to live, work and visit.

LEADING BY EXAMPLE

Knozone sponsors "bike for free days" during ozone action days through the Pacers Bikeshare and also partners with Nine13Sports to bring bicycle and air quality education to schools. Additionally, the Knozone Action Days now include alerts related to extreme heat and unhealthy air quality.





NATURAL RESOURCES

61

OUR PLAN FOR 2025

NATURAL RESOURCES OBJECTIVE 1

Green spaces and trees are sustained and equitably expanded.

ACTION	POTENTIAL FUNDING SOURCE(S)	IMPLEMENTATION BENEFITS:						
		INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation		
NR:1A Implement a policy to ensure the use of 100% native plants and proactive removal of invasive species in parks and along greenways by 2022.	Evaluation of current permits and fees	\$	\$	●	●	●	●	●
NR:1B Increase green spaces to improve stormwater infiltration and ensure appropriate ongoing maintenance by 2022.	US NPS Community RTCA, EPA Clean Water Act Nonpoint Source Grant, EPA CWSRF, HUD CDBG	\$\$\$	\$\$\$	●	●	●	●	●
NR:1C Create a per capita spending goal of at least \$50 (from the existing \$26) to maintain the parks and recreation system through applicable creative financing options, and develop steps to move towards this goal.	-	\$\$	\$\$	●	●	●	●	●
NR:1D Plant 30,000 additional native trees by 2025 to increase canopy, reduce runoff and mitigate against the urban heat island, particularly in those neighborhoods in most need.	US NPS Community RTCA, EPA Clean Water Act Nonpoint Source Grant, EPA CWSRF, HUD CDBG	\$\$	\$	●	●	●	●	●

LEGEND

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● FAVORABLE ● NEUTRAL ● UNFAVORABLE



OUR PLAN FOR 2025

NATURAL RESOURCES OBJECTIVE 2

Air and water quality meet or exceed federal standards.

IMPLEMENTATION BENEFITS:

ACTION

POTENTIAL FUNDING SOURCE(S)

INITIAL COSTS TO IMPLEMENTERS

ONGOING COSTS TO IMPLEMENTERS

Equity Benefits: Reducing Disparities

Positive Public Health Impacts

Potential for Net Job Creation

GHG Reduction Potential

Increased Resilience for Socially Vulnerable Areas/ Populations

NR:2A

Analyze traffic signal upgrades, roundabouts and other congestion control measures in Indianapolis, and develop an implementation plan by 2022.

DOT Better Utilizing Investments to Leverage Development (BUILD) Grants

\$\$

\$\$



NR:2B

Develop and deploy a more robust stormwater and water quality education program, including addressing chemicals in landscaping, by 2022.

Internal Funding, EPA Section 319 Grants

\$\$

\$



NR:2C

Reduce the burning of gasoline and diesel by increasing the use of transportation alternatives through the Indy Moves Plan and promoting idling reduction programs.

Evaluation of current permits and fees

\$\$

\$



NR:2D

Through the Energy Benchmarking program, promote initiatives that improve water conservation with 1,000 participating businesses by 2022.

Grants, sponsors

\$

\$



LEGEND

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● FAVORABLE ● NEUTRAL ● UNFAVORABLE



TRACKING OUR PROGRESS

To ensure we are on a path to achieve our goals, a number of metrics and associated targets have been identified for the Natural Resources plan element. Below are a sample of these metrics. We anticipate these metrics will be updated as more data becomes available. The performance metrics will be reported every three years, and the output metrics will be reported annually.

	BASELINE DATA	BASELINE YEAR	2025 TARGET
PERFORMANCE METRICS (reported every three years)			
# of days not meeting National Air Quality Standards ⁶⁸	7	2017	5
% of samples* that exceed Indiana Water Quality Standards for E.coli ⁶⁹	86%	2018	40%
Per capita spending to maintain parks ⁷⁰	\$26	2016	\$50
OUTPUT METRICS (reported annually)			
# of youth participating in summer and after school recreational programs ⁷¹	210,322	2018	213,932

* Percent of monthly sample geometric means exceeding standards for Pogues Run

⁶⁸ City of Indianapolis Office of Sustainability, 2017

⁶⁹ Marion County Public Health Department, 2018

⁷⁰ Indy Parks, 2016

⁷¹ Indy Parks, 2018

PUBLIC HEALTH & SAFETY



OVERVIEW

The ability of individuals to live healthy lives in a safe community is paramount to long-term sustainability and resilience. While preparing our community members for a changing climate and the associated impacts, we must work together to address the chronic stressors that keep them from reaching their full potential.

OUR VISION

The health and safety of the public is a priority and is addressed through community programs that promote overall well-being and physical activity, as well as work to ensure that all residents are safe, have access to affordable healthcare and are prepared for climate- and human-related hazards.

WHERE WE STAND IN 2018

The 2014 Marion County Community Health Assessment has identified unhealthy weight, mental health, poverty, and chronic disease prevention and management as the top priorities to be addressed. Overweight and obesity trends have continued to increase. Additionally, depression was an ailment identified as impacting every age group from children through seniors. One in five residents live at 100% of the federal poverty level, most of which are concentrated in six zip codes in central Marion County. Finally, asthma, the most common chronic condition of childhood affects double the number of children in Marion County as compared to Indiana or US averages.⁷²



Like most of the US, Indianapolis has seen an increase in adult obesity rates

2004 **25.6%**⁷³

2016 **34.3%**⁷⁴

Rates of overweight elementary school children

2005 

2012 

⁷² Marion County Public Health Department, 2014

⁷³ Center for Disease Control and Prevention, 2013

⁷⁴ Center for Disease Control and Prevention, 2015

⁷⁵ City of Indianapolis, 2018



PUBLIC HEALTH & SAFETY

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OUR PLAN FOR 2025

PUBLIC HEALTH & SAFETY OBJECTIVE 1

Upward trend in the percentage of the population that reports being active, healthy and happy.

ACTION	POTENTIAL FUNDING SOURCE(S)	IMPLEMENTATION BENEFITS:					
		INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation	GHG Reduction Potential
PH:1A Collaboratively engage the Marion County Public Health Department and relevant local government departments or agencies to integrate health considerations (typically referred to as "Health in All Policies") into local plans and policies related to the built environment, physical activity and access to fresh food with equitable benefits for everyone in the community before 2024.	Evaluation of current permits and fees	\$	\$	●	●	●	●
PH:1B Develop a Community Health Improvement Plan to strengthen equity in the delivery of health services and improve community health before 2020. This will include addressing issues around the social determinants of health, mental health and obesity/diabetes.	Evaluation of current permits and fees	\$	\$	●	●	●	●
PH:1C Increase reach of information and education to the public regarding health issues, including climate-related illnesses related to more anticipated heat, ozone and mosquitoes.	Evaluation of current permits and fees	\$\$	\$\$	●	●	●	●

LEGEND

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- FAVORABLE ● NEUTRAL ● UNFAVORABLE



PUBLIC HEALTH & SAFETY

OUR PLAN FOR 2025

PUBLIC HEALTH & SAFETY OBJECTIVE 2

Increase community resilience through public health and safety measures that are equitably deployed.

IMPLEMENTATION BENEFITS:

ACTION

POTENTIAL FUNDING SOURCE(S)

INITIAL COSTS TO IMPLEMENTERS

ONGOING COSTS TO IMPLEMENTERS

Equity Benefits: Reducing Disparities

Positive Public Health Impacts

Potential for Net Job Creation

GHG Reduction Potential

Increased Resilience for Socially Vulnerable Areas/ Populations

PH:2A

Increase the number of residents with emergency preparedness resources and training in our most vulnerable neighborhoods based on the 2018 Vulnerability Assessment before 2022.

CDC Public Health Emergency Preparedness (PHEP) cooperative agreements

\$

\$\$



PH:2B

Launch a coordinated preparedness campaign by 2022 - with city departments, emergency management agencies and preparedness organizations - that encourages residents to take actions that improve their ability to protect themselves and our community in advance of a crisis based on 2018 Multi-Hazard Mitigation Plan recommendations.

CDC Public Health Emergency Preparedness (PHEP) cooperative agreements, Emergency Management Performance Grant Program (EMPG)

\$\$

\$\$



PH:2C

Pilot the city's first energy resource center with physical, web and mobile resources, acting as a resilience hub for the neighborhood before 2021. Residents will have access to information that better prepares them for natural disasters and other hazards.

CDC Public Health Emergency Preparedness (PHEP) cooperative agreements, Emergency Management Performance Grant Program (EMPG)

\$

\$



PH:2D

Expand workforce preparedness training opportunities and programs including climate change information for physicians and other public health providers, to quickly restore essential city services after a crisis before 2022.

CDC Public Health Emergency Preparedness (PHEP) cooperative agreements, Emergency Management Performance Grant Program (EMPG)

\$\$

\$\$\$



LEGEND

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● FAVORABLE ● NEUTRAL ● UNFAVORABLE

INDY BEST PRACTICE: Community Emergency Response Team



The Community Emergency Response Team (CERT) trains people to be better prepared to respond to emergency situations in their communities. CERT trained community members are able to give critical support to first responders, provide immediate assistance to victims and organize spontaneous volunteers at a disaster site. The CERT program provides an opportunity for citizens to take an active role in local emergency preparedness.

LEADING BY EXAMPLE

All municipal employees that have not already received the Community Emergency Response Team training will be trained by 2023.

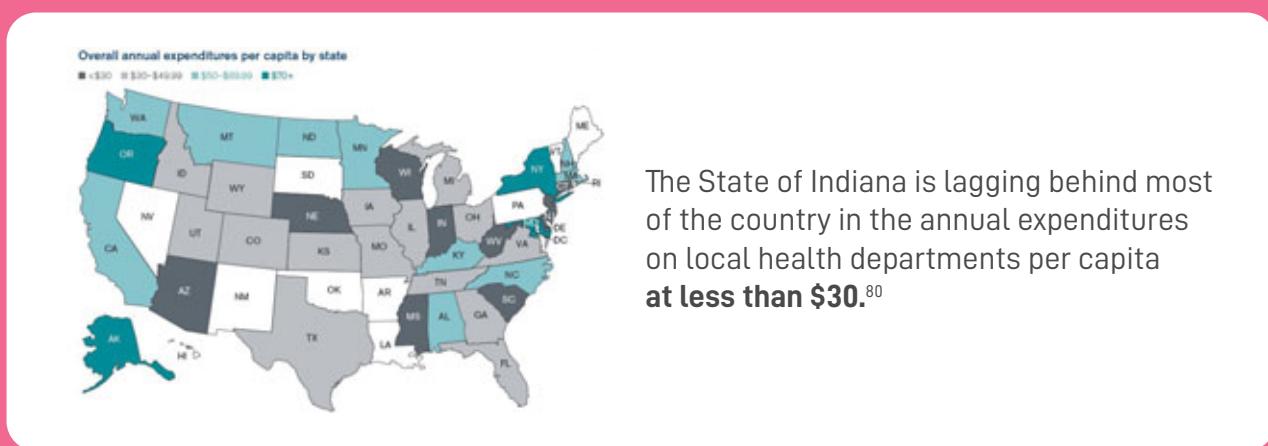


TRACKING OUR PROGRESS



To ensure we are on a path to achieve our goals, a number of metrics and associated targets have been identified for the Public Health & Safety plan element. Below are a sample of these metrics. We anticipate these metrics will be updated as more data becomes available. The performance metrics will be reported every three years, and the output metrics will be reported annually.

	BASELINE DATA	BASELINE YEAR	2025 TARGET
PERFORMANCE METRICS (reported every three years)			
# of annual days air quality impacts vulnerable populations ⁷⁶	12	2016	6
% of adults who are overweight or obese ⁷⁷	67%	2012	62%
% of children who are active at least 60 minutes per day ⁷⁸	78.3%	2018	86.1%
OUTPUT METRICS (reported annually)			
% of residents with health insurance ⁷⁹	86.1%	2016	100%



76 OoS, 2016

77 MCPHD, 2014

78 MCPHD, 2018

⁷⁹ U.S. Census Bureau. 2016.

⁸⁰ National Association of County & City Health Officials, 2016



TRANSPORTATION & LAND USE

OVERVIEW

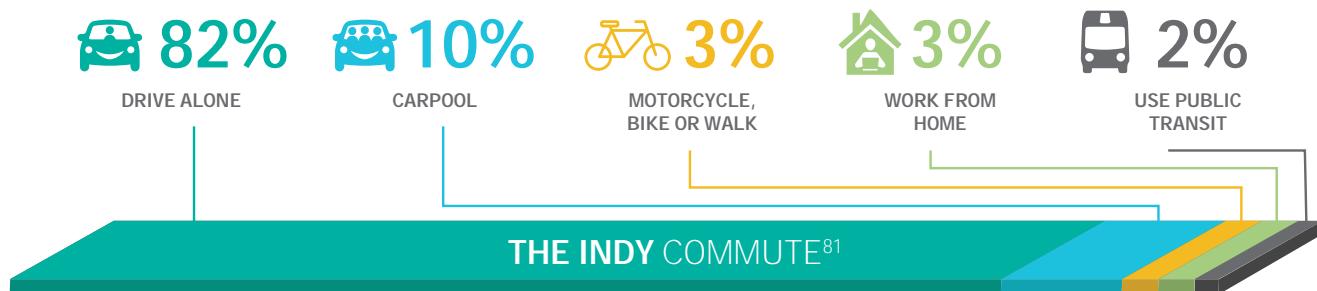
Decisions about transportation options and land use planning play a critical role in determining how we get around and the impact of that travel. In a geographically large city like Indianapolis, it is not feasible to develop in a way that ensures everyone can walk to work. However, we can prioritize redevelopment in neighborhoods that lend themselves to transit or other modes of commuting. Another way to reduce greenhouse gas emissions from transportation is to switch to low-carbon fuels. With a municipal electric utility, we are very interested in the opportunities to reduce GHG emissions through promoting electric vehicles, while also greening our electricity grid.

OUR VISION

Transportation & Land Use are connected systems that focus on equitable accessibility to multiple modes of low-emission transportation and development that creates active living spaces that are affordable, multi-use and foster inclusive neighborhoods.

WHERE WE STAND IN 2018

The current state of transportation is heavily skewed towards the use of personal vehicles. The necessity for a personal vehicle is high: while 86% of jobs are accessible in 30 minutes by car, only 20% are accessible in 1 hour by public transit. This is undoubtedly a contributor to the 5% increase in transportation-related GHG emissions from 2010-2016.



FAST FACT: Driving Alternatives

Through implementation of the Marion County Transit Plan and the installation of 104 miles of bike lanes, Indianapolis is heading in the direction to provide affordable and safe alternatives to driving.

GHG Emissions from Transportation in MTCO₂e⁸²

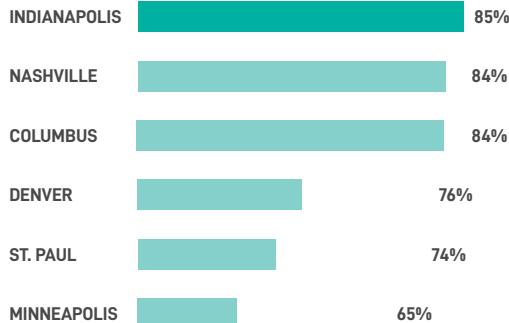
4,732,942 in 2010	4,749,656 in 2013	4,947,294 in 2016
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⁸¹ StatsIndiana, 2016

⁸² City of Indianapolis & Marion County, 2018



Percent of Commuters Who Drive Alone to Work⁸³



⁸³ City of Indianapolis & Marion County, 2018

LEADING BY EXAMPLE

The City of Indianapolis will develop a comprehensive fleet plan that prioritizes opportunities to shift to low-carbon vehicles and right-size the fleet.



TRANSPORTATION & LAND USE

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OUR PLAN FOR 2025

TRANSPORTATION & LAND USE OBJECTIVE 1

The percentage of residents with affordable, multimodal transportation options has increased at least 15% over 2016 levels by 2025, specifically among those communities identified as most vulnerable through the Transportation Equity Index.

IMPLEMENTATION BENEFITS:

ACTION	POTENTIAL FUNDING SOURCE(S)	INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	IMPLEMENTATION BENEFITS:				
				Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Areas/Populations
TL:1A Through equitable redesign, extended hours and completing construction on the bus rapid transit lines, IndyGo will increase transit service by 70% and increase ridership by 15%.	Voter-Approved Transit Referendum	\$\$\$	\$\$\$	●	●	●	●	●
TL:1B Implement existing transportation plans to increase the miles of sidewalks, bikeways, trails and complete streets and the number of intersections with safety and operational improvements.	DOT BUILD Grants	\$\$	\$\$	●	●	●	●	●
TL:1C Increase transit-oriented development through high density housing, access to employment opportunities and economic growth with measurably less consumption of energy.	DOT BUILD Grants, FTA Urbanized Area Formula Funding	\$\$\$	\$\$\$	●	●	●	●	●
TL:1D Encourage local businesses to adopt commuter incentives for employees, to encourage alternative modes of commuting such as walking, biking, and transit.	Private Corporations	\$	\$	●	●	●	●	●
TL:1E Continue to identify opportunities to create temporary pedestrian-only zones in our cultural and entertainment districts by 2020.	Evaluation of current permits and fees	\$\$	\$\$	●	●	●	●	●

LEGEND

- FAVORABLE
 - NEUTRAL
 - UNFAVORABLE
- =\$ = capital cost (<\$1m) / capital investment annual maintenance (<\$250k) / program implementation (<\$100k) / program annual maintenance (<\$50k)
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TRANSPORTATION & LAND USE

OUR PLAN FOR 2025

TRANSPORTATION & LAND USE OBJECTIVE 2

Increase electric vehicle (EV) ownership 300% by 2025 from the 2017 baseline of 760 vehicles.

IMPLEMENTATION BENEFITS:

ACTION	POTENTIAL FUNDING SOURCE(S)	INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	IMPLEMENTATION BENEFITS:				
				Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Areas/ Populations
TL:2A Create local EV educational resources, pilot low-cost EV parking downtown, identify downtown fast charging locations, and launch an EV corporate fleet challenge.	UA DOE EERE Grants, IPL	\$\$	\$\$\$	●	●	●	●	●
TL:2B Develop a comprehensive, community-wide EV / autonomous vehicle (AV) readiness plan by 2020.	IPL	\$\$	\$	●	●	●	●	●
TL:2C Convert remaining IndyGo fleet to electric by 2031.	Evaluation of current permits and fees, grants	\$\$\$	\$\$\$	●	●	●	●	●
TL:2D Host six in-person educational opportunities for Marion County residents to increase awareness of benefits of EV ownership by 2020.	US DOE EERE Grants	\$	\$	●	●	●	●	●

LEGEND

- FAVORABLE
 - NEUTRAL
 - UNFAVORABLE
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TRACKING OUR PROGRESS

To ensure we are on a path to achieve our goals, a number of metrics and associated targets have been identified for the Transportation & Land Use plan element. Below are a sample of these metrics. We anticipate these metrics will be updated as more data becomes available. The performance metrics will be reported every three years, and the output metrics will be reported annually.

BASELINE DATA	BASELINE YEAR	2025 TARGET
PERFORMANCE METRICS (reported every three years)		
% of commuters who drive alone ⁸⁴	85%	2013
Total GHG emissions from the transportation sector ⁸⁵	4,947,294 MTCO ₂ e	2016
OUTPUT METRICS (reported annually)		
Miles of bike lanes ⁸⁶	104	2017
# of EVs registered in Indianapolis ⁸⁷	760	2017
		3,040

INDY BEST PRACTICE: Indy Moves Pedal Indy Plan

Part of the Indy Moves plan that combines the city's many transportation initiatives into a united vision, Pedal Indy aims to create a low-stress bicycle network that is accessible and welcoming for people of all ages and bicycling abilities. To accomplish this, the plan lays out 35 distinct projects that create new neighborhood connections, improve access to major destinations, and fill gaps in the existing bike network. Pedal Indy promotes actions that maximize safety through protected infrastructure and education and supports programs that encourage people to bike more (e.g., community rides and competitions).

⁸⁴ City of Indianapolis & Marion County, 2018

⁸⁵ City of Indianapolis & Marion County, 2018

⁸⁶ City of Indianapolis & Marion County, 2018

⁸⁷ Indiana Bureau of Motor Vehicles, 2017



WASTE & RECYCLING

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OVERVIEW

While greenhouse gas (GHG) emissions for Indianapolis' Waste sector are less than 1% of total community-wide emissions, Waste is the fastest growing sector for GHG emissions with more than a 50% increase between 2010 and 2016.⁸⁸ Our Waste sector has a significantly greater impact on our health and environment when we look at the lifecycle emissions (which the nationally accepted GHG Accounting Protocols do not take into account). A lifecycle analysis would look at all the energy and materials that are required to create the products that we are throwing away - often after only one use. The actions in **Thrive Indianapolis** seek to reduce the impact of the Waste sector and help grow an economy around the resources that are currently being disposed of by our community.

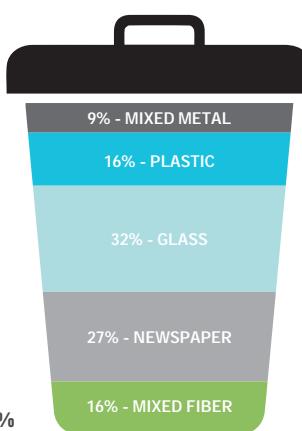
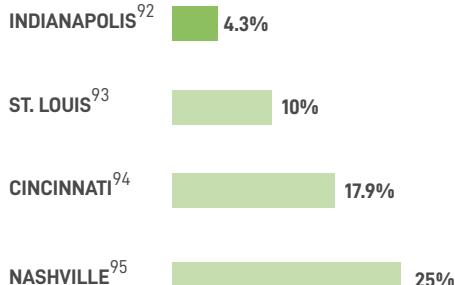
OUR VISION

The impact that waste has on our health and the environment is significantly minimized because we have found creative ways to reduce the amount of waste in products, limit how much we consume and increase recycling and reuse.

WHERE WE STAND IN 2018

	2015	2016	2017
City (Daily Pulls)	5,654.27	5,312.08	4,610.02
Republic (Weekend Pulls)	807.05	580.19	1,000.83
Subscription Recycling	9,127.41	9,081.96	7,725.32
Totals	15,588.73	14,974.23	13,336.17

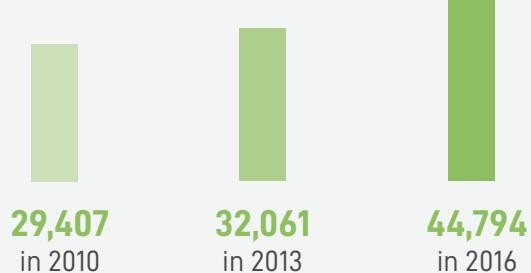
Comparing Recycling Rates & What is Recycled in INDY⁹¹



the circular economy (noun)

"A closed loop system that turns the traditional 'take-make-use-dispose' approach on its head; products are designed to be reused, reducing waste piling up in landfills and decreasing the need for new materials."⁸⁹

GHG Emissions from Waste in MTCO₂e⁹⁶



⁸⁸ City of Indianapolis & Marion County, 2018

⁸⁹ Ellen MacArthur Foundation, 2017

⁹⁰ City of Indianapolis & Marion County Department of Public Works, 2017

⁹¹ Ibid

⁹² City of Indianapolis, 2018

⁹³ Saint Louis City Recycles, 2016

⁹⁴ Hamilton County Recycling & Solid Waste District, 2017

⁹⁵ Metro Nashville Public Works, 2018

⁹⁶ City of Indianapolis & Marion County, 2018



WASTE & RECYCLING

75

OUR PLAN FOR 2025

WASTE & RECYCLING OBJECTIVE 1

Support a "reduce first" approach to waste, and actively promote waste minimization policies, programs and events.

IMPLEMENTATION BENEFITS:

ACTION	POTENTIAL FUNDING SOURCE(S)	INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	IMPLEMENTATION BENEFITS:			
				Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation	GHG Reduction Potential
WR:1A Develop waste minimization strategies for all large-scale, public events by 2022.	Evaluation of current permits and fees, grants, event expenses	\$\$	\$	●	●	●	●
WR:1B Through the Thriving Schools Challenge, promote and support programs that reduce waste in schools by 2022.	Evaluation of current permits and fees, grants	\$	\$	●	●	●	●
WR:1C Educate the public on single-use plastics and the direct impacts these types of products have on our natural resources.	Solid Waste Management Grants	\$	\$	●	●	●	●
WR:1D Support businesses that divert waste by providing new life for used products.	Solid Waste Management Grants	\$	\$	●	●	●	●

LEGEND

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● FAVORABLE ● NEUTRAL ● UNFAVORABLE



OUR PLAN FOR 2025

WASTE & RECYCLING OBJECTIVE 2

Increase the community-wide waste diversion rate by 40% by 2030.

ACTION	POTENTIAL FUNDING SOURCE(S)	INITIAL COSTS TO IMPLEMENTERS	ONGOING COSTS TO IMPLEMENTERS	IMPLEMENTATION BENEFITS:				
				Equity Benefits: Reducing Disparities	Positive Public Health Impacts	Potential for Net Job Creation	GHG Reduction Potential	Increased Resilience for Socially Vulnerable Areas/ Populations
WR:2A Provide universal residential curbside recycling to all Indianapolis residents by 2025.	Evaluation of current permits and fees	\$\$\$	\$\$\$	●	●	●	●	●
WR:2B Offer subscription curbside composting to all Indianapolis residents by 2025.	Evaluation of current permits and fees	\$\$\$	\$\$\$	●	●	●	●	●
WR:2C Analyze construction and demolition waste generated and propose reduction and diversion measures by 2022.	Solid Waste Management Grants	\$\$	\$	●	●	●	●	●
WR:2D Provide multi-lingual, multi-format recycling and composting educational materials at the local energy resource centers and resilience hubs.	Solid Waste Management Grants	\$	\$	●	●	●	●	●

LEGEND

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 ● FAVORABLE ● NEUTRAL ● UNFAVORABLE

FAST FACT:

The reuse, recycling and composting industry creates

10 X

more jobs than
the disposal industry.⁹⁷

⁹⁷ Wheeler, 2013

LEADING BY EXAMPLE

In 2017, Mayor Hogsett launched the "It's My City" campaign, a three-year effort designed to improve our city to a clean, green and beautiful home.



TRACKING OUR PROGRESS



To ensure we are on a path to achieve our goals, a number of metrics and associated targets have been identified for the Waste & Recycling plan element. Below are a sample of these metrics. We anticipate these metrics will be updated as more data becomes available. The performance metrics will be reported every three years, and the output metrics will be reported annually.

BASELINE DATA	BASELINE YEAR	2025 TARGET
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PERFORMANCE METRICS (reported every three years)

Total GHG emissions from the waste sector ⁹⁸	44,794 MTCO ₂ e	2016	35,835 MTCO ₂ e
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OUTPUT METRICS (reported annually)

Total tons of material recycled ⁹⁹	13,336	2017	16,696
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INDY BEST PRACTICE: Indianapolis Thriving Schools Challenge

The Thrive Indianapolis Schools Challenge aims to energize students, educators and parents to take action on and ownership of sustainability. The City of Indianapolis Office of Sustainability, in partnership with Earth Charter Indiana, is providing support and guidance to participating schools to create new projects that engage children and young adults around important topics like environmental stewardship, social responsibility, waste reduction and resource conservation. These projects will make our community and schools healthier places to live, learn and grow.

⁹⁸ City of Indianapolis & Marion County, 2018

⁹⁹ City of Indianapolis & Marion County Department of Public Works, 2017

REFERENCES

- ¹ U.S. Census Bureau. (2016). 2012-2016 American Community Survey 5-Year Estimates for Marion County. Retrieved from <https://factfinder.census.gov/>
- ²Ibid.
- ³ BestPlaces. (2018). Cost of Living Calculator. Retrieved from <https://www.bestplaces.net/cost-of-living/>
- ⁴U.S. Census Bureau. (2010). 2010 Census. Retrieved from <https://factfinder.census.gov/>
- ⁵U.S. Census Bureau. (2016). 2012-2016 American Community Survey 5-Year Estimates for Marion County. Retrieved from <https://factfinder.census.gov/>
- ⁶Kinghorn, M. (2018). Indiana population projections to 2050. InContext. Retrieved from: <http://www.incontext.indiana.edu/2018/mar-apr/article1.asp>
- ⁷Fortune 500. (2017). Retrieved from: <http://fortune.com/fortune500/2017/>
- ⁸Donahue, R., McDearman, B., & R. Barker. (2017). Committing to Inclusive Growth: Lessons for metro areas from the Inclusive Economic Development Lab. Metropolitan Policy Group at Brookings. Retrieved from https://www.brookings.edu/wp-content/uploads/2017/09/metro_20170927_committing-to-inclusive-growth-iedl-report.pdf
- ⁹Environment America. (2018). Shining Cities 2018: How Smart Local Policies Are Expanding Solar Power in America. Retrieved from https://environmentamerica.org/sites/environment/files/reports/EA_shining_cities2018_scrn%20%282%29.pdf
- ¹⁰IND Solar Farm. (2018). Homepage. Retrieved from <https://indsolarfarm.com/>
- ¹¹EmployIndy. (2017). 2017 Year in Review. Retrieved from <https://employindy.org/wp-content/uploads/2017/12/2017-Year-in-Review.pdf>
- ¹²U.S. EPA & U.S. DOE Energy Star Program. (2018). ENERGY STAR Certified Buildings and Plants (web database). Retrieved from https://www.energystar.gov/index.cfm?fuseaction=labeled_buildings.locator Green Buildings Council. (2018). LEED Project Search (web database). Retrieved from <https://www.usgbc.org/projects?keys=Indianapolis>
- ¹³City of Indianapolis & Marion County. (2017). Indy Moves Existing Conditions 2017. Retrieved from http://indymoves.org/wp-content/uploads/2017/10/indy_moves_existing_conditions_report.pdf
- ¹⁴Ibid.
- ¹⁵ibid.
- ¹⁶City of Indianapolis & Marion County. (2018). Indy Parks Amenities (webpage). Retrieved from <http://www.indy.gov/eGov/City/DPR/Amenities/Pages/home.aspx>
- ¹⁷The Polis Center at IUPUI, Greater Indianapolis Committee, City of Indianapolis Department of Metropolitan Development & SAVI. (2016). IndyVitals. Retrieved from <https://indyvitals.org/>
- ¹⁸U.S. Department of Agriculture (USDA). (2015). Food Access Research Atlas Data Download. Retrieved from <https://www.ers.usda.gov/data-products/food-access-research-atlas/download-the-data/#Archived%20Versions>
- ¹⁹STAR Communities. (2015). Food Security and Assistance Indicator. Retrieved from <https://reporting.starcommunities.org/indicators/community/14/18>
- ²⁰American Lung Association. (2017). Personal Communication with Matt Mosier.
- ²¹Center of Disease Control and Prevention. (2013). 2004-2013 County Data Indicators. Adult Obesity Prevalence. Retrieved from <https://www.cdc.gov/diabetes/data/countydata/countydataindicators.html>
- ²²Center for Disease Control and Prevention. (2015). 500 Cities: Local Data for Better Health. Retrieved from <https://chronicdata.cdc.gov/500-Cities/500-Cities-Census-Tract-level-Data-GIS-Friendly-Fo/k86t-wghb>
- ²³City of Indianapolis. (2018). Universal Curbside Recycling Analysis Final Report.
- ²⁴Great Lakes Integrated Sciences + Assessments. Global Historical Climatology Network, CMIP3, and Dynamically Downscaling for the Midwest and Great Lakes Basin.
- ²⁵City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.
- ²⁶Kriss, J. (2014). What is a green building? U.S. Green Buildings Council. Retrieved from <https://www.usgbc.org/articles/what-green-building>
- ²⁷City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.
- ²⁸U.S. EPA & U.S. DOE Energy Star Program. (2018). ENERGY STAR Certified Buildings and Plants (web database). Retrieved from https://www.energystar.gov/index.cfm?fuseaction=labeled_buildings.locator (2018). LEED Project Search (web database). Retrieved from <https://www.usgbc.org/projects?keys=Indianapolis>
- ²⁹City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.
- ³⁰Ibid.
- ³¹Ibid.
- ³²City of Indianapolis Department of Public Works. (2013). Stormwater Rate Adjustment Study.
- ³³U.S. EPA & U.S. DOE Energy Star Program. (2018). ENERGY STAR Certified Buildings and Plants (web database). Retrieved from https://www.energystar.gov/index.cfm?fuseaction=labeled_buildings.locator U.S. Green Buildings Council. (2018). LEED Project Search (web database). Retrieved from <https://www.usgbc.org/projects?keys=Indianapolis>
- ³⁴ChargeHub. (2018). Retrieved from <https://chargehub.com/en/charging-stations-map.html?lat=39.767315&lon=-86.1799505000002&locId=47854>
- ³⁵Isaacs, J. B., Sawhill, I. V. & Haskins, R. (2008). Getting Ahead or Losing Ground: Economic Mobility in America. Brookings Institution. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/02_economic_mobility_sawhill.pdf
- ³⁶The Polis Center at IUPUI. (2015). SAVI database. Retrieved from <http://www.savi.org/savi/>
- ³⁷Ibid.
- ³⁸EmployIndy. (2017). 2017 Year in Review. Retrieved from <https://employindy.org/wp-content/uploads/2017/12/2017-Year-in-Review.pdf>
- ³⁹Second Helpings. (2017). Email Correspondence with Katie Prine on Oct 1, 2018.
- ⁴⁰U.S. Census Bureau. (2016). 2012-2016 American Community Survey 5-Year Estimates for Marion County. Retrieved from <https://factfinder.census.gov/>
- ⁴¹The Polis Center at IUPUI. (2015). SAVI database. Retrieved from <http://www.savi.org/savi/>
- ⁴²U.S. Census Bureau. (2016). 2012-2016 American Community Survey 5-Year Estimates for Marion County. Retrieved from <https://factfinder.census.gov/>
- ⁴³Duke Energy Corporation. (2017). Duke Energy plans solar, energy storage projects to advance reliability, cleaner energy for Indiana. Retrieved from <https://news.duke-energy.com/releases/duke-energy-plans-solar-energy-storage-projects-to-advance-reliability-cleaner-energy-for-indiana>
- ⁴⁴City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.

- ⁴⁵ AES Corporation. (2018). Indianapolis Power and Light Company's power generation resource mix. Retrieved from: https://www.iplpower.com/About_IPL/Power_Generation/
- ⁴⁶ City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.
- ⁴⁷ Indianapolis Power & Light Company (IPL). (2018). Email Correspondence with Zac Elliot on Nov 9, 2018.
- ⁴⁸ Ibid.
- ⁴⁹ City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.
- ⁵⁰ Environment America. (2018). Shining Cities 2018: How Smart Local Policies Are Expanding Solar Power in America. Retrieved from https://environmentamerica.org/sites/environment/files/reports/EA_shiningcities2018_scrn%20%282%29.pdf
- ⁵¹ USDA. (2017). Food Security in the US Overview (webpage). <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/>
- ⁵² Indy Food Council. (2018). Indianapolis State of the Food System Report.
- ⁵³ Indy Parks. (2018). Our Vision and Mission (webpage). Retrieved from <http://www.indy.gov/eGov/City/DPR/Pages/IndyParksHome.aspx>
- ⁵⁴ STAR Communities. (2015). Food Security and Assistance Indicator. Retrieved from <https://reporting.starcommunities.org/indicators/community/14/18>
- ⁵⁵ Ibid.
- ⁵⁶ United Way of Central Indiana, The Polis Center at IUPUI & SAVI. (2016). Community Report Card-Marion County. Retrieved from <http://m.indianaimpact.org/MarionCounty>
- ⁵⁷ Barrett, C. (2018). Fresh Produce Market Opens at Downtown Transit Center. WFYI Indianapolis. Retrieved from <https://www.wfyi.org/news/articles/fresh-food-market-opens-at-downtown-transit-center>
- ⁵⁸ USDA. (2015). Food Access Research Atlas Data Download. Retrieved from <https://www.ers.usda.gov/data-products/food-access-research-atlas/download-the-data/#Archived%20Versions>
- ⁵⁹ Indy Food Council. (2018). Indianapolis State of the Food System Report.
- ⁶⁰ City of Indianapolis Office of Sustainability. (2017). Personal Communication with Matt Mosier.
- ⁶¹ Keep Indianapolis Beautiful. (2015). Tree Canopy Hot Spot Tool. Retrieved from <https://pg-cloud.com/KIB/>
- ⁶² City of Indianapolis & Marion County. (2018). Indy Parks Amenities (webpage). Retrieved from <http://www.indy.gov/eGov/City/DPR/Amenities/Pages/home.aspx>
- ⁶³ Ibid.
- ⁶⁴ Ibid.
- ⁶⁵ Reynolds, H.; Brandt, L.; Widhalm, M.; Fei, S.; Fischer, B.; Hardiman, B.; Moxley, D.; Sandweiss, E.; Speer, J.; & Dukes, J. (2018). Maintaining Indiana's Urban Green Spaces: A Report from the Indiana Climate Change Impacts Assessment. Urban Green Spaces Reports. Paper 1. Retrieved from <http://dx.doi.org/10.5703/1288284316653>
- ⁶⁶ KIB. (2015). Tree Canopy Hot Spot Tool. Retrieved from <https://pg-cloud.com/KIB/>
- ⁶⁷ Pacific Institute. (2007). Bottled Water and Energy Efficiency Fact Sheet. Retrieved from <http://pacinst.org/publication/bottled-water-and-energy-a-fact-sheet/>
- ⁶⁸ City of Indianapolis Office of Sustainability. (2017). Personal Communication with Matt Mosier.
- ⁶⁹ Data collection in progress
- ⁷⁰ Indy Parks. (2016). Indy Parks & Recreation Comprehensive Master Plan. Retrieved from <http://www.indy.gov/eGov/City/DMD/Planning/Documents/2017CPSR001-IndyParksMasterPlan.pdf>
- ⁷¹ Indy Parks. (2018). Email Correspondence with Linda Broadfoot on Nov 19, 2018.
- ⁷² Marion County Public Health Department (MCPHD). (2014). Community Health Assessment 2014. Retrieved from <http://marionhealth.org/mcpdh-community-health-assessment-2014/>
- ⁷³ Center of Disease Control and Prevention. (2013). County Data Indicators. Adult Obesity Prevalence. Retrieved from <https://www.cdc.gov/diabetes/data/countydata/countydataindicators.html>
- ⁷⁴ Center for Disease Control and Prevention. (2016). 500 Cities: Local Data for Better Health. Retrieved from <https://chronicdata.cdc.gov/500-Cities/500-Cities-Census-Tract-level-Dat-a-GIS-Friendly-Fo/k86t-wghb>
- ⁷⁵ City of Indianapolis. (2018). Email Correspondence with Taylor Schaffer on Nov 19, 2018.
- ⁷⁶ City of Indianapolis Office of Sustainability. (2018). Personal Communication with Matt Mosier.
- ⁷⁷ MCPHD. (2014). Community Health Assessment 2014. Retrieved from <http://marionhealth.org/mcpdh-community-health-assessment-2014/>
- ⁷⁸ MCPHD. (2018). Community Health Assessment 2018.
- ⁷⁹ U.S. Census Bureau. (2016). 2012-2016 American Community Survey 5-Year Estimates for Marion County. Retrieved from <https://factfinder.census.gov/>
- ⁸⁰ National Association of County & City Health Officials. (2016). 2016 National Profile of Local Health Departments. Retrieved from http://nacchoprofilestudy.org/wp-content/uploads/2017/10/ProfileReport_Aug2017_final.pdf
- ⁸¹ StatsIndiana. (2016). Travel to Work using US Census Data. Retrieved from http://www.stats.indiana.edu/dms4/new_dpage.asp?profile_id=23&output_mode=1
- ⁸² City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.
- ⁸³ City of Indianapolis & Marion County. (2018). Indy Moves Final Plan.
- ⁸⁴ Ibid.
- ⁸⁵ City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.
- ⁸⁶ City of Indianapolis & Marion County. (2017). Indy Moves Existing Conditions 2017. Retrieved from http://indymoves.org/wp-content/uploads/2017/10/indy_moves_existing_conditions_report.pdf
- ⁸⁷ Indiana Bureau of Motor Vehicles. (2017). Personal Communication with Matt Mosier.
- ⁸⁸ City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.
- ⁸⁹ Ellen MacArthur Foundation. (2017). Circular Economy Overview. Retrieved from <https://www.ellenmacarthurfoundation.org/circular-economy/overview/concept>
- ⁹⁰ City of Indianapolis & Marion County Department of Public Works. (2017). 2002-2017 Recycle Processing Monthly Tonnage Totals. Email Correspondence with Jeffrey Meek on Oct 31, 2018.
- ⁹¹ Ibid.
- ⁹² City of Indianapolis. (2018). Universal Curbside Recycling Analysis Final Report.
- ⁹³ Saint Louis City Recycles. (2016). Data and Reports. Retrieved from <http://stlcityrecycles.com/recycle-with-us/additional-resources/reports-status-reports/>
- ⁹⁴ Hamilton County Recycling & Solid Waste District. (2017). Residential Recycling Statistics. Retrieved from http://www.hamiltoncountyclerries.org/local_governments/residential_recycling_stats
- ⁹⁵ Metro Nashville Public Works. (2018). Monthly Recycling and Trash Tonnage Report for Fiscal Year 2017-2018. Retrieved from <https://www.nashville.gov/Portals/0/SiteContent/pw/docs/recycle/Statistics/MonthlyWebDataFY18.pdf>
- ⁹⁶ City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.
- ⁹⁷ Wheeler, Stacy. (2013). The Untapped Job Potential of Indiana's Recycling Industry. Indiana Recycling Coalition. Retrieved from <http://indianarecycling.org/wp-content/uploads/2013/12/IRC-2013-Recycling-Job-StudyNEW.pdf>
- ⁹⁸ City of Indianapolis & Marion County. (2018). Greenhouse Gas Emissions Inventory Report for 2010, 2013, & 2016.
- ⁹⁹ City of Indianapolis & Marion County Department of Public Works. (2017). 2002-2017 Recycle Processing Monthly Tonnage Totals. Email Correspondence with Jeffrey Meek on Oct 31, 2018.

